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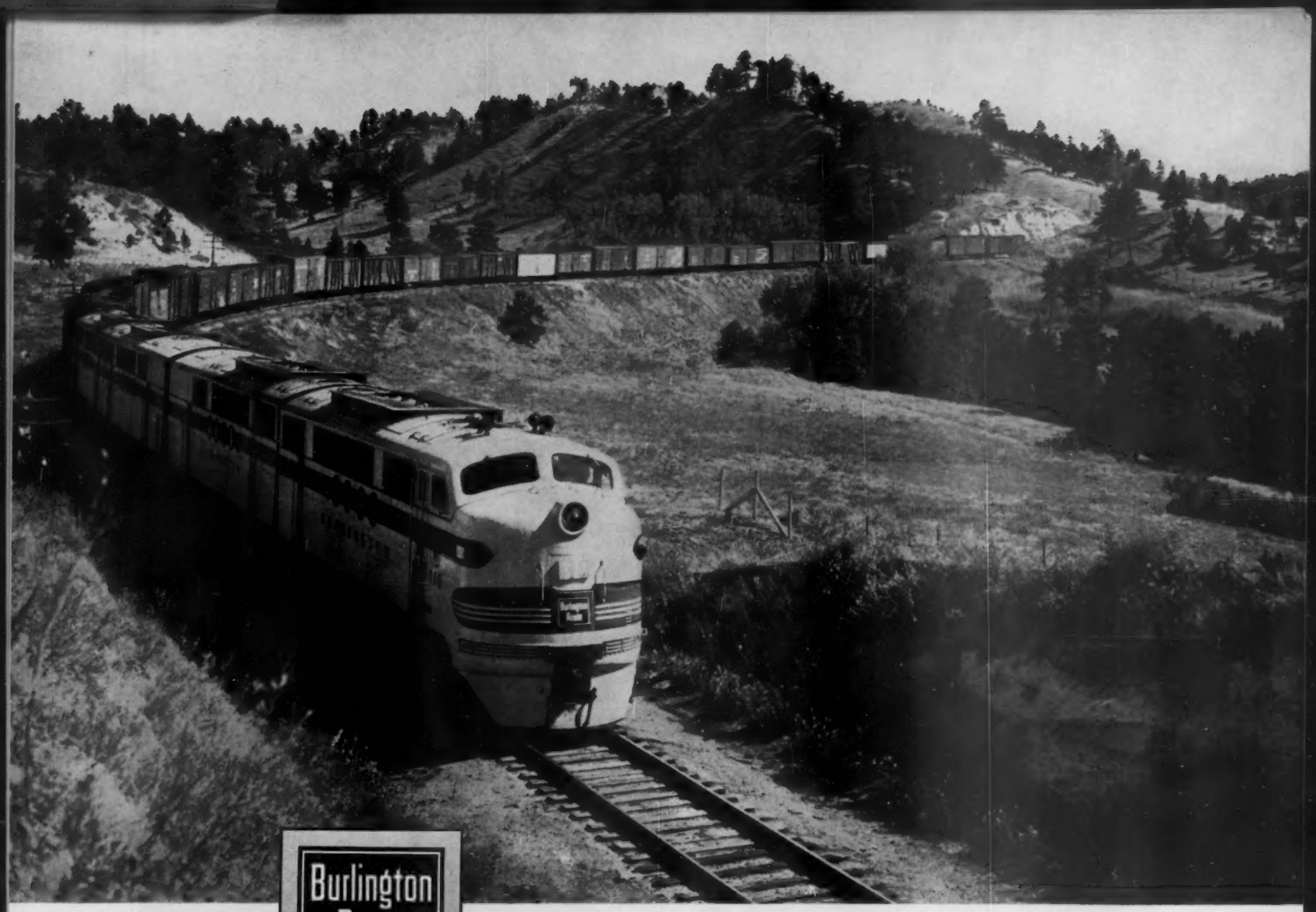

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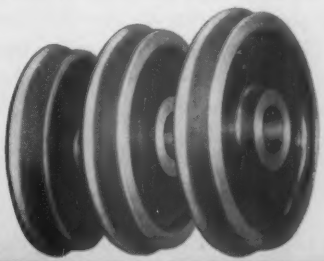

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May 16, 1955 **Vol. 138, No. 20**

Week at a Glance

Passenger service is in the railroad limelight. Passenger officers, meeting in Chicago, gave strong indications of intensified interest in the importance and the techniques of "selling." Major passenger car builders are giving them new and appealing tools with which to work—ACF with its redesigned Talgo; Pullman-Standard with its new "Day-Nite Duplex" coach, and Budd with a full-train version of its RDC. And with earnings showing a decided improvement over last year, it is at least possible to hope that money will be available to provide some of that attractive new equipment. 10, 13, 15, 16

FORUM—Pricing for more riders. Up-to-date pricing and modern merchandising methods can make the passenger business grow. 125

The passenger train of the future —what will it be like? What benefits will it produce? 126

And, perhaps, most important of all—will it lure the public? 131

Surveys of *Railway Age* readership, time and time again, turn up complimentary references to the high quality and informational value of our advertising pages. How the editors of this paper view the efforts of the advertisers who make such pages possible, is the somewhat unusual subject of this week's Benchmarks and Yardsticks column. 133

What's Ahead for the Passenger Business?
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Fares—are more cuts ahead? It looks as though passenger fares may be shuffled in drive to get business off the highways. 146

Research sells the "Cal-Zephyr." Study of travel trends and ticket sales helps pinpoint sales efforts. 148

AAR accelerometer tests prove cars ride better with

FREE LATERAL

In the official AAR accelerometer road tests of various new high-speed freight car trucks conducted in recent years, **trucks equipped with bearings which permit free lateral movement of the journals consistently showed lower lading damage index ratios than the same trucks did when equipped with bearings which restrain lateral movement.**

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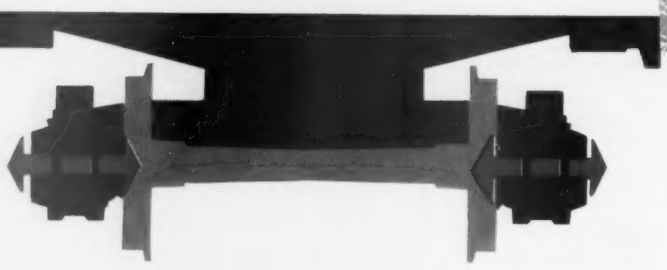

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Current Statistics

Operating revenues, three months	
1955	$2,298,884,456
1954	2,265,312,671
Operating expenses, three months	
1955	$1,763,808,781
1954	1,836,579,222
Taxes, three months	
1955	$ 241,932,325
1954	222,990,391
Net railway operating income, three months	
1955	$ 232,177,806
1954	145,201,184
Net income, estimated, three months	
1955	$ 175,000,000
1954	92,000,000
Average price railroad stocks	
May 10, 1955	96.87
May 11, 1954	64.76
Carloadings, revenue freight	
Seventeen weeks, 1955	11,153,839
Seventeen weeks, 1954	10,456,220
Average daily freight car surplus	
Wk. ended May 7, 1955	15,726
Wk. ended May 8, 1954	133,622
Average daily freight car shortage	
Wk. ended May 7, 1955	5,010
Wk. ended May 8, 1954	402
Freight cars on order	
April 1, 1955	17,974
April 1, 1954	20,966
Freight cars delivered	
Three months, 1955	7,263
Three months, 1954	13,741
Average number railroad employees	
Mid-March 1955	1,007,371
Mid-March 1954	1,059,612

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BRIEFS

The Railway Business Association will hold a special meeting of its membership in Chicago May 19 to act on a plan of reorganization, recommended by the governing board, which calls for a greatly enlarged program of educational activity in behalf of the railroads. Permanent association of RBA with the Federation for Railway Progress also is proposed.

Robert R. Young, who gained control of the New York Central in a proxy fight last year, may be on the receiving end of a similar fight in Alleghany Corporation. His opponents would be a group of Alleghany stockholders reportedly headed by Randolph Phillips, former consultant to Mr. Young. The committee is said to seek election of four "watchdog" directors to the Alleghany board.

Beautiful girls will model the latest in summerwear, including bathing suits, aboard the Lehigh Valley's "John Wilkes" during its May 25 run from Allentown, Pa., to New York. This, it is believed, will be the first time anywhere a regular passenger train has served as the scene for a full-scale fashion show.

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Cabinet-Report Bill Introduced

Senate and House get proposals to implement recommendations of President Eisenhower's transport advisory committee—Long hearings predicted

Bills designed to carry out recommendations of President Eisenhower's Advisory [Cabinet] Committee on Transport Policy and Organization were introduced in Congress last week.

Identical bills went to the Senate and House on "by request" bases, which means that the introducers were not committed to the proposals. The Senate bill, S.1920, was introduced by Senator Smathers, Democrat of Florida, for himself and Senators Magnuson, Democrat of Washington, and Bricker, Republican of Ohio. House bills, H.R.6141 and H.R.6142, were introduced by Representative Priest, Democrat of Tennessee, who is chairman of the House Committee on Interstate and Foreign Commerce; and by the Committee's ranking minority member, Representative Wolverton, Republican of New Jersey.

The House bills were referred to that committee, while the Senate bill went to the like-named Senate committee, which is headed by Senator Magnuson. Senator Bricker is the Senate committee's ranking minority member, while Senator Smathers is chairman of its subcommittee on surface transportation.

The bill is a 51-page document which would write the cabinet committee's recommendations into the Interstate Commerce Act. Among other changes, therefore, it would rewrite the declaration of national transportation policy, provide more rate-making freedom for common carriers, sharpen the definitions of private and contract carriage, repeal the bulk commodity exemption applicable to water carriers, and give the Interstate Commerce Commission power to override state commissions in authorizing abandonments of intrastate railroad services (*Railway Age*, April 25, page 49).

The bill was written in the Department of Commerce, Secretary of Commerce Weeks having been chairman of the cabinet committee. Much language from the committee's report was employed in writing the bill, which contemplates amendments to various sections of the act.

Not a "Package"—Senator Smathers does not consider it a "package or omnibus bill." The proposals were put in the form of a single bill "merely for convenience," he said when he introduced it.

"The bill comprises a series of amendments and will be handled that way by the committee," Senator Smathers added. "The amendments are highly controversial, and I am of the opinion they will necessitate rather extensive hearings. We shall proceed as expeditiously as is proper with full opportunity for all interested persons to present their views."

Senator Magnuson also made a statement, saying he had joined in introducing the bill "at the request of the secretary of commerce." He added that the legislation proposed is "very, very controversial."

"Realistic" Proposals—"The report's recommendations to expedite rate proceedings and to develop equitable rate structures are realistic," the Senate committee chairman continued. At the same time, however, he expressed disagreement with proposals "that will permit undue interference with or jeopardize the existence of any type of transportation essential to our national security."

Hearings on the bill will be conducted by the subcommittee which Senator Smathers heads, Senator Magnuson announced. He also had this to say:

"I sincerely hope that when the surface transportation subcommittee holds its public hearings shippers and the consuming public who, in the final analysis, pay the bill, will make their views known. After all, this is a matter of the utmost importance to them. The American public is spending around $72 billion a year for domestic transportation. And something like $20 billion of that goes to carriers that are regulated by the federal government.

"By its very nature this bill cannot be forced draft legislation. It will require long hearings. Careful thought must be given to the recommendations on the part of all segments of transportation, shippers, and the public. Today we have by far the best transportation system the world has ever known. We cannot afford to lightly cast aside the policies and legislation which have made this progress possible."

TAA View—The Transportation Association of America favors Congressional consideration of the recommendations as individual proposals rather than as a "package." TAA's president, George P. Baker, has so advised Secretary Weeks and Sherman Adams, assistant to President Eisenhower. Action on proposals with respect to which there is "substantial agreement" should

DINING BENEATH THE SUN — or under the stars—is one of three choices about to be offered Union Pacific-Chicago & North Western passengers aboard the domeliners "City of Los Angeles," "City of Portland," and "Challenger." Passengers may also dine at the regular level (visible through stairway at the center) or in a 10-seat private dining room beneath the dome. The new diners, being delivered to the UP this month by ACF Industries, Inc., are part of an order for 35 aluminum dome cars which includes the coaches and lounge cars described in the April 11 *Railway Age*.

be sought at this session of Congress, Dr. Baker said.

As now written, the bill opens with the proposed new declaration of policy, which would supplant the act's present declaration. The cabinet committee's rate-freedom proposals contemplated reliance on competition to keep rates in line, the rate power of the ICC being limited to the fixing of maximum and minimum rates. The bill undertakes to rewrite on that basis the act's various provisions covering regulation of rates of railroads, trucks, water carriers and freight forwarders.

The proposed rewriting of section 4 would provide automatic relief from the long-and-short-haul clause if it were needed to meet actual competition of another carrier—provided the lower charge to the more distant point were not less than a "just and reasonable minimum charge."

Power for the ICC to override state commissions on intrastate service matters would come in amendments to section 13. Here would be a provision to the effect that the ICC could not override unless it found that the public would be left without reasonably adequate service in lieu of that proposed to be abandoned.

New Section 15(a)—Among other proposed amendments to section 15 would be that cutting, from seven months to three months, the maximum period for which the ICC could suspend rates. Also, the present rate-making rule would be supplanted by an entirely new section 15(a), and thus would go the present provision which directs the ICC to consider the effect of proposed rates on movement of traffic.

Into the new section 15(a) would be gathered several rate-regulation provisions and rate policy pronouncements as recommended by the cabinet committee. These would include statements to the effect that volume rates (such as trainload rates) and rates tied to "incentive minimum weights" for the purpose of promoting heavier loading shall not constitute unjust discrimination.

Rates to Government—Also in the new section 15(a) would be the proposed new provisions which would make rates accorded governments subject to all provisions of the act, except suspension and the long-and-short-haul clause. A follow-through from this would be the elimination of governments from section 22's list of those entitled to benefits of that section.

The bill's definitions of contract and private truckers would require that the former provide under bilateral contracts "individualized services . . . equivalent to bona fide private carriage"; and that the private truckers ownership or lease of property it hauls must not have been undertaken "for the purpose of such transportation." Another provision would require contract carriers to file actual, rather than minimum, charges.

The bill would end the bulk commodity exemption applicable to water carriers by repealing the act's section 303(b). By expanding section 402(c), it would provide more definite standards for determining which shippers or shipper associations, involved in consolidating operations, were to be exempt from regulation as forwarders.

ICC Bar Hears Rail Views

Zoll, Martin, ask greater freedom for railroad truck operations, more reliance on relative costs in rate-making—Tuggle would "prune" "basically sound" regulation

Fewer restrictions on railroad use of motor trucks, and more attention to relative transportation costs as a factor in rate-making, were advocated by two railroad attorneys who addressed the 26th annual meeting of the Association of Interstate Commerce Commission Practitioners at New York, May 5-6.

How commission-imposed restrictions on railroad trucking hurt both railroads and shippers was discussed by Erle J. Zoll, Jr., general commerce attorney of the Illinois Central, in the course of a forum discussion on operations, certificates, unification, service and safety. The desirability of considering relative costs as a factor in rates was outlined by Eldon Martin, vice-president and general counsel of the Burlington, during another forum session on traffic, rates, charges and costs.

Restrictions Backfire—Railroads, Mr. Zoll said, "do not seek to engage in the trucking business as such. What they seek is the right to handle their business in trucks along their rail lines free of [prior-or-subsequent-rail-haul or key-point] restrictions which in a great many instances so hamper their utilization of trucks as to deprive the public of improvements in service and the railroads of savings in operating costs."

"Conditions today," he continued, "are vastly altered" from those prevailing when the commission's policy in those respects was established in cases decided in 1936 and 1938. "The trucking industry has reached adulthood. Its share of the country's intercity traffic has steadily grown, while the railroads' lcl freight has steadily, and greatly, diminished. . . . . These restrictions now are creating undue restraint of competition, not preventing it. . . . Protection of the trucking industry by continued hampering of rail carriers in their efforts to improve

NEW DOME-LOUNGE CARS are being placed in service on the Southern Pacific streamliners, "San Francisco Overland," "San Joaquin Daylight," and "Shasta Daylight." The new cars built in SP shops at Sacramento, are an 85-ft improved version of the pilot model the SP built in 1954 (*Railway Age*, August 16, 1954, pages 26-27). The cars have two levels, or "terraces," and in most cases the upper terrace features both observation and lounge area. The lower level cocktail lounges, also domed with glass, have more window space than did the earlier model

their handling of lcl has backfired, hurting both railroads and shippers not only servicewise but ratewise as well."

"Both railroads and public lose from the commission's hobbling railroads in their use of trucks," Mr. Zoll contended.

"Relative" Costs—Mr. Martin, while conceding that precise costs of specific movements are probably unobtainable, advocated that railroads develop "relative costs" both for their own use in efficient management, and for use in determining rates to be submitted to the ICC. The commission itself, he also contended, should consider such relative costs in prescribing rates designed to maintain "inherent advantages" of the several forms of transportation.

With respect to these inherent advantages, he pointed out that railroads use from one-half to 1½ horsepower to move one ton, while trucks use from 15 to 25 hp to move a corresponding ton. Truck movement also involves the cost borne by the public to provide and maintain highways; this cost, Mr. Martin said, should be added to the trucks' greater power cost to obtain a true determination of relative advantages of rail and highway transport.

Minimum Rate Orders—IC Commissioner Howard Freas, participating in the same forum as Mr. Martin, said rate structures "should be living things, fully responsive to changing transportation and commercial needs." "Regulatory interference" in setting minimum rate levels should be only "to minimize promiscuous rate cutting." It should not "serve as an umbrella for the prodigal and inefficient" nor "be exercised with the abandon that operates to stifle normal healthy competition."

Questions on Piggyback—The idea advanced by Mr. Zoll, of greater freedom for railroads to engage in trucking operations, received apparent support from Edward K. Laux, traffic manager of the Port of New York Authority, in the traffic forum. Why, Mr. Laux asked, must railroads restrict piggyback service "to the so-called terminal areas of their own stations? Why should the service and rates not apply to and from municipalities not served by rail track, or to and from industries located along new highways?"

He also suggested the possibility of rail-lake or rail-lake-rail piggybacking, with highway trailers transported by rail from the eastern seaboard to such lake ports as Oswego, N.Y., or Ogdensburg; by lake vessel to western lake ports; and by rail again to "interior destinations."

ICC Secretary Harold D. McCoy, speaking on the same forum as Mr. Zoll, advocated giving the commission power to cancel a water carrier certificate, "where the holder has not operated for a long time and apparently has no intentions of resuming service in the foreseeable future."

Would "Prune" Regulation—Commissioner Kenneth H. Tuggle, speaking at the association's annual luncheon, said that, in his judgment, "overall basic regulatory provisions contained in the Interstate Commerce Act and the national transportation policy clause are sound, and not outmoded." He added, however, that "good transport law, like a tree, needs to be pruned occasionally, and sometimes it is advisable to graft new life on a stout trunk."

As examples of possible areas for "pruning," he suggested:

- The fourth section: This "probably should be amended, to eliminate all unnecessary refinements of the long-and-short-haul principle."
- The agricultural exemption provision: "If the present trend continues, exempted movements will little resemble the farm-to-market operation originally envisioned by Congress. Congress should reexamine, redefine, restrict or eliminate certain present areas of exemption."
- The "fuzzy line" now drawn between private and for-hire motor carriage: "The real problem flows from the many subterfuges and schemes now resorted to merely as a means of getting around the law."

He also advocated limitation on the bulk-commodity exemption accorded to water carriers, and legislation to aid in the solution of the railroads' passenger-deficit problem.

To support his contention that present regulatory law is basically sound, Mr. Tuggle pointed out that, under it, "regulated carriers are free to adjust their rates within the zone of reasonableness. . . . Carriers are in position to expedite their own procedure and thus eliminate much of the present delay in bringing about needed rate changes."

He also "doubted the wisdom" of "using cost factors alone, to the exclusion of all other considerations . . . in determining the lawfulness of competitive rate adjustments," since "that theory would substantially eliminate the main test of reasonableness."

John R. Mahoney, of the New York law firm of Casey, Lane & Mittendorf, was elected AICCP president; while Ford K. Edwards and Wilbur LaRoe, Jr., both of Washington, D.C., were reelected secretary and treasurer, respectively. Railroad men elected to district vice-presidencies included Mr. Zoll; S. J. Witt, vice-president—traffic, Nickel Plate; F. J. Melia, general solicitor, Union Pacific; and W. H. Armbrecht, Jr., president, Alabama, Tennessee & Northern.

Is It Really "Weighted"?

Weeks report gives railroads nothing competitors don't already have or would get through its proposals, but even the advances it offers may fail without support of "on-the-ground" railroad men

Sharp comment came from two railroad men in Denver last week. Both were talking about the same subject—the report of the President's Advisory [Cabinet] Committee on Transport Policy and Organization—and both placed a huge responsibility on railroad men beneath the ranks of top management.

- **"Don't be ashamed to write your congressman! There's nothing wrong with representing the railroad industry. Go ahead and write him on company stationery! We've held our light under a bushel too long," said Perry J. Lynch, vice-president of the Union Pacific.**
- **"No recommendation made by the committee would give railroads any rights that other forms of transportation do not already have or would receive if the committee's proposals are carried out. Anyone who contends that the report is more favorable to railroads than to other carriers overlooks the fact that the report fails to recommend a number of proposals made by the railroads and needed to correct many of the present inequalities in the transportation field," stated Albert R. Beatty, assistant vice-president of the Association of American Railroads.**

Both men spoke on the same occasion—the 64th annual meeting of the AAR's Freight Claim Division. Both men expressed firm conviction that support of recently introduced House and Senate measures, designed to accomplish the committee's recommendations, will succeed only with public support. As Mr. Lynch put it, "we [railroad men and women] are the public, too!"

Two Jobs—"Perhaps at no time in the history of railroads has it been so essential that the public be keenly aware of the importance of the job railroads are doing and the many obstacles under which they are doing it," Mr. Beatty declared. "The railroad industry today needs public understanding more than ever before, and unless the industry has it, and this support is translated into constructive action, the future of the industry is uncertain," he said.

In addition to his full time job, each railroad man has a part-time job —"the part we play in the general relationship of railroads with the public." Both must be done well, he said, for "we have no choice as to whether we

ACF REDESIGNS TALGO

THE FIRST ARTICULATED CAR for a Talgo train redesigned to meet American requirements, built and tested at the Berwick, Pa., plant of ACF Industries, Inc., was displayed to press, newsreel and television representatives in special runs over Lackawanna tracks out of Hoboken, N. J., May 11. The car demonstrated consisted of the second, third and fourth units pictured above. It is a forerunner of those which will be delivered to the Rock Island late this year for its new Chicago-Peoria "Jet Rocket," and of others authorized for purchase by the New Haven for New York-Boston service. The unit next to the locomotive in the illustration holds test instruments and would not be a part of Talgo trains built for revenue service.

Most significant feature of the new Talgo design, as compared with that of its predecessors operating in Spain, is its flexibility. Each three-unit car is completely reversible, and interchangeability of cars is standardized to eliminate time-consuming multiple connections. Wheels of each car are so placed as to support the car at all times, whether it is coupled to an adjoining car or not.

With a floor level 26 in. above rail, the new Talgo, 10 ft 10 in. high, is 2 ft 8 in. lower than conventional equipment; its center of gravity is 18 in. lower. The three-unit car, 109 ft 3 in. long, has from 84 to 96 seats; weight is from 700 to 800 lb per passenger. The car has internal expanding, automotive-type brakes; two air-conditioning units; two separate heating systems; and improved electrical and water-supply systems. It can be quickly coupled to a standard car or locomotive through a transition unit. Dimensions are standardized to permit various interior arrangements.

The Rock Island's "Jet Rocket" will consist of four three-unit coaches, accommodating 296 passengers; one car will include a kitchen unit, a 32-seat dining unit and a club-lounge-parlor unit. With its specially designed 1200-hp General Motors diesel locomotive, the train will be nearly 500 ft long. It is expected to make two round trips a day between Chicago and Peoria, on a schedule slightly faster than that of the road's present "Peoria Rocket."

ACF spokesmen estimate that three-unit Talgo coaches could be built on a production basis for approximately half the cost of a standard 85-ft coach, and that operating and maintenance costs will be about one-quarter the comparable cost of conventional equipment.

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shall have relations with the public. Our only choice is as to what sort of relations we shall have. It is generally recognized that the most effective way of making a good impression on the public and telling others about railroads is through acts and words of railroad men with whom the public comes in contact—on duty or off. Each must first be informed himself," Mr. Beatty said.

"As might be expected, objections to the report have already been raised by some who have an interest in continuation of present inequalities in public transportation policy. You may have read statements to the effect that it is a 'railroad report' or that it is 'heavily weighted' in favor of railroads and proposes a virtual removal of the protections of regulation in the field of transportation. Anyone who is impartial and at all familiar with the present transportation situation and who has taken time to study the report will soon find how groundless these statements are."

"I firmly believe that if the public is given all the facts and is made to realize that enactment of these measures is in the public interest, there will be little question as to what the sentiment will be. We as railroad men can be helpful not only to our industry but also to the welfare of the nation. It will be our responsibility to make certain that the public is informed and understands why it is so vital that we have a fair field in transportation where all forms of carriage are treated alike in respect to regulation," Mr. Beatty concluded.

Not Management's Job—The opposition is "hammering away" Mr. Lynch warned. "The job cannot be done by your top management. Management is looked upon as a 'pressure lobby.' What's wrong with 'weighted' findings of honest and studious men? What's wrong with the report being 'weighted' in favor of the railroads? We've asked for no favors or advantages. We've asked for nothing but just, equal treatment. We can't let the matter drop. The job is up to the men in the ranks," he concluded.

Traffic Clubs Vote on Repeal of Transport Taxes

Directors of the Associated Traffic Clubs of America have submitted to members of that association a resolution calling for repeal of federal taxes on transportation, both freight and passenger.

The resolution notes that the 10% tax on passenger travel was adopted in wartime, and today "discourages rather than stimulates" passenger transportation.

It lists these objections to the tax on transportation of property:

(1) It compounds, by reassessment, the tax on repeated movements of the same property or products of the same property.

(2) The tax is on a necessity, not a luxury.

(3) Since the tax is measured by

the transportation charge, rather than the value or character of the commodity, the spread in the amount of tax assessment varies greatly with the length of haul.

(4) It applies only on for-hire transportation, and gives private transport a competitive advantage.

BofLE Supports Cabinet Report on Transportation

The Brotherhood of Locomotive Engineers has announced its support, with minor exceptions, of the report of President Eisenhower's Advisory Committee on Transport Policy and Organization. Incorporation of Cabinet recommendations into administration legislative proposals "at the earliest possible moment" was urged upon President Eisenhower by the union.

Guy L. Brown, BofLE grand chief engineer, said railroad presidents and labor chiefs are expected to meet soon to consider a joint public relations and legislative program to bring public and congressional support to the Cabinet recommendations.

An "Out" for Ailing Commuter Lines?

A bill that would permit affected communities to purchase and operate a railroad suburban route has been introduced in the Illinois state senate.

The immediate purpose of the bill is to permit suburban communities from Evanston to Lake Forest to take over the Shore Line branch of the Chicago North Shore & Milwaukee—abandonment of which has been authorized by the Illinois Commerce Commission and recommended by an examiner for the Interstate Commerce Commission.

Known as the Arrington-Bidwill bill, the measure would permit creation of a public transportation district upon proper petition of residents of the area. It would provide for an elected five-man board, with power to operate suburban or interurban transit lines beyond the boundaries of the district itself. The district would have power to issue bonds, acquire existing transit facilities, purchase new equipment, etc. It also would have general taxing powers to meet deficits. Unlike Chicago's Transit Authority, however, the suburban transit district would be subject to jurisdiction of the Illinois Commission.

Abandonment of the local route has been sought by the CNS&M for a number of years. It has petitioned to substitute bus service, but the communities—combined population of which is close to 70,000—insist that rail service be retained and say the proposed bus operation would not satisfy needs of the line's present users. Private investors also are reported interested in purchasing the rail line which circuitously parallels the North Shore's main Chicago-Milwaukee line as far north as Waukegan.

The bill's provisions seem applicable also to the Chicago, Aurora & Elgin, another Chicago suburban carrier which has been operating under financial difficulties.

Faricy Praises Transport Report at Clerks' Meeting

The recent report of President Eisenhower's Advisory Committee on Transport Policy and Organization is "a milestone in the development of a more equitable public transportation policy in this country," William T. Faricy, president of the Association of American Railroads, said last week.

Addressing the international convention of the Brotherhood of Railway & Steamship Clerks at Boston, Mr. Faricy commended the report for recognizing that "competition pervades the transportation industry today" and that adjustment of government regulatory policies toward the industry is "long overdue."

In a detailed analysis of the report, Mr. Faricy stressed the competitive problem faced by railroads especially by citing the fact that while all rail traffic is subject to strict regulation under existing law, only about 35% of intercity highway traffic and 12% of inland waterway traffic is subject to any rate regulation.

The AAR president said the advisory committee had found that "in many respects government policy at present prevents, or severely limits, realization of most economical use of the nation's transportation plant—with increased costs which necessarily are borne by the traveler, shipper and ultimate consumer."

The very cornerstone of a modernized regulatory policy, he said, was envisioned by the committee to be "increased reliance on competitive forces in rate making."

"The railroad industry, and railroad men, have no fear of competition upon an equal basis," Mr. Faricy declared. "Indeed, they seek greater freedom to compete on such a basis, with the thought that under such conditions the inherent advantages of the

Briefly . . .

. . . The Long Island is painting a big red number on the side of each car leaving its shops under its $21,000,000 program to modernize 696 passenger cars. To call further attention to progress in modernization, the LI has erected, at its three main stations, large signs with slots for changeable numbers. The signs read "As of today [ ] LIRR Cars Have Been Completely Modernized." Every time another car, with a new number, rolls out of the shops, the number on each sign is changed.

A "ZOO TRAIN" run to give children a chance to spend a day at New York's big Bronx zoo, is one of the newest revenue-building specials to be operated by the passenger-conscious New Haven. The first zoo train was actually three—one each from Springfield, Mass., Hartford, Conn., and New Haven; total tickets sold numbered 2,461. And just to make sure the kids didn't miss a trick the zoo arranged to display some of its milder denizens right on the train. Other similar trains are planned.

rail method of moving persons and things in trains of cars on tracks will be sufficient to secure for the railroads that traffic which they can handle best, with greatest efficiency and at lowest cost."

He said that views to the effect that the committee's recommendations would remove protections of regulation for transportation users "overlook the numerous safeguards with which the committee has surrounded its proposals for giving freer rein to transportation enterprises so they might function under a system of dynamic competition."

For example, Mr. Faricy pointed out, the committee proposed that the Interstate Commerce Commission have authority to fix reasonable maximum rates as protection against excessive charges, and to fix reasonable minimum rates which meet the test of being compensatory to the carrier proposing them.

In dealing with such "deregulation aspects," Mr. Faricy said, the underlying principle of the report "is that the public interest in transportation will be best served by an overall national transportation system—rail, highway, water and air—in which each mode of transportation takes its proper place and part. Under such a system each mode would perform those services which it can do better and more economically than the other modes."

Rail-Truck Group Lauds Transport Policy Report

Recognition by President Eisenhower's Advisory Committee on Transport Policy that common carrier transportation is the "hard core" of the nation's transportation system has been acclaimed by the Council of Eastern Rail and Truck Common Carriers.

In a joint statement, Walter J. Tuohy, Chesapeake & Ohio president, and D. L. Sutherland, chairman of the Middle Atlantic Transportation Company, a motor truck carrier, who are co-chairmen of CERT, said "any legislation resulting from the Advisory Committee report which would encourage a strong and financially sound common carrier industry, both truck and rail, would best serve the nation and its defense needs."

Specific recommendations of the report endorsed by both rail and truck members of CERT included: Redefinition of the term "private carrier by motor vehicle"; redefinition of motor and water contract carriage and the filing of the actual, rather than the minimum, charges; provision of definite statutory standards for determining the precise exempt status for freight forwarder associations; and the reexamination of agricultural commodity exemptions.

Operations

A MORE ECONOMICAL TYPE of m-u car is being considered, to replace these now in service in suburban areas.

Pennsylvania Making Motive Power Study

The Pennsylvania is now in the midst of a study to determine how to improve and better utilize its various types of motive power. The study is being made jointly by the railroad, the General Electric Company and the Westinghouse Electric Corporation, with the firm of Gibbs & Hill, consulting engineers, acting as a "catalytic agency" to coordinate all phases of the work.

The primary purposes of the study are to determine the possibilities of developing improved electric freight and passenger locomotives, and the potentialities of a combination diesel and electric locomotive which could operate both as a diesel locomotive and as a straight electric locomotive obtaining power from an overhead contact system.

In addition, the Pennsylvania is exploring the possibilities of high-speed multiple-unit cars for its "Clocker" trains between New York and Philadelphia, and for service between New York and Washington, D.C. Another part of the study includes an m-u car which may be used more economically than those now in suburban service.

The study also is investigating PRR passenger train operation on the New York & Long Branch, to see if electrification, or substitution of diesel locomotives for steam in Long Branch (New Jersey shore) territory, would be desirable.

Previous electrification studies made in 1947 indicated that the Middle division (Harrisburg, Pa., and Enola to Altoona) might be operated electrically without any great increase in motive power. Accordingly, the present study will determine whether or not the economics of such an arrangement would release sufficient diesel power to postpone purchase of additional diesel locomotives for use in territory west of Altoona.

None of the investigation has been completed, but it is expected some conclusions may be reached within the next two months.

Four Railroads Begin Fast West-East Freight Service

A new fast through freight service from Chicago to Boston was inaugurated May 10. The service, providing second-morning delivery in Boston, is operated by the Nickel Plate, the Lackawanna, the Delaware & Hudson and the Boston & Maine. On the same date, the four railroads also established from Chicago a third-morning arrival at important Maine points. To accomplish this, schedules were speeded up to provide Portland, Me., arrival from Chicago before midnight the second day.

Traffic

Passenger Officers Talk "Selling"

Speakers at Chicago interim meeting cite need for greater merchandising, making every employee a salesman

Railroad passenger officers are taking a new look at their sales efforts, in the hope they can lure more customers off highways and boost their share of intercity travel.

Such thinking was clearly evident when members of the American Association of Passenger Traffic Officers held their interim meeting in Chicago May 2-3. A half-dozen outside speakers joined in discussing the need for adept "selling." Many passenger officers agreed:

E. A. Klippel, general passenger traffic manager, Union Pacific, said the way to increased passenger business is to have every employee become an "effective salesman."

R. T. Anderson, GPTM of the Santa Fe, reported that a recent test on one division of his road increased sales by $8,000 in a single month. He said he believes many employees already are "sales minded," but he plans to expand his test program.

C. E. Williams, GPTM of the New Haven, said his road is increasing its full-time passenger sales force from 21 to 27, including three women. He reminded the passenger officers that, "It's not just the railroad trip you're selling—it's the end of the trip as well."

Such broad-gage selling provided the text for a speech by Pierre Martineau, director of research for the Chicago Tribune, who told AAPTO members that today's traveler is motivated by a lot more than "just getting to his destination." He said railroads must reestablish "the color, glamor and up-to-dateness" of train travel; and added that the "attitude" of travelers is the thing that must be studied.

Sell Style—"You can't sell passenger service like you sell the freight business," Mr. Martineau declared. He told how Chrysler Corporation has upped its share of the automobile market in 1955 by advertising and selling a "Forward Look"—not by trying to merchandise the size of its payroll or the kind of factories the company has.

"Give yourself a psychological facelifting; start selling 'smartness'," Mr. Martineau went on. He said vacation travelers in particular want color and imagination, and the railroads can work on these "psychological overtones" a lot more than they yet have.

F. H. BAIRD, assistant vice-president for passenger traffic, New York Central, and president of the American Association of Passenger Traffic Officers, presided at the organization's interim meeting in Chicago, May 2-3.

Another speaker, Hays MacFarland of the advertising firm of MacFarland, Aveyard & Co., told the passenger officers that in visiting railroad ticket offices over the past few months, he has been "shocked" by the lack of selling.

Mr. MacFarland's firm is retained by the Pullman Company, and has just completed a wide survey of travel attitudes. There is, he told the passenger officers, a lot of room for improvement in railroad sales training.

With 20,000 "retail outlets" handling their product on an exclusive basis, the railroads have magnificent distribution, Mr. MacFarland declared. He said it should be easy for them to do the job American business always does best—selling.

"But I think railroads are prone to picture the beauties of the train, rather than the joy of riding it," Mr. MacFarland continued. He suggested they should make more use of the merchandising talent of their advertising agencies in working out their sales programs.

The agency officer embraced Mr. Klippel's earlier remark on the need for "employee salesmen." Why not, he asked, set up "test towns" to see what can be done in creating a more aggressive sales force? Why not build a sales technique like the automobile agencies—where the salesmen won't take "No" for an answer?

A Cut For Agents?—Elsewhere in their two-day session, the passenger officers heard a request for payment of commissions to travel agents. T. J. Donovan, president of the American Society of Travel Agents, asked that railroads set up a two-year trial period and pay a 10% commission on rail tickets.

"You would be amazed at the business this would create," Mr. Donovan declared. He said travel agents can put 5 to 10% of today's highway traffic on trains, and will do a "wonderful job" for the railroads if they get the incentive. He went on to suggest that railroads should do more to "educate" travel agents in what they have to offer.

Commissioner Walter A. McDonald, of the Georgia Public Service Commission, discussed the passenger deficit at the May 3 luncheon, and labeled it the "foremost consideration of the railroad industry and the greatest threat to the solvency of our railroads as private enterprise."

How to Lick a Loss—Solution of the deficit problem, he said, lies not in surrendering the field to the competition through abandonments but in aggressive promotion by experimentation with new-type equipment, incentive fares and better public relations.

Mr. McDonald, who is chairman of the Passenger Deficit Committee, National Association of Railroad & Utilities Commissioners, said management and labor must cooperate in finding the final answer. The work of his NARUC committee, he added, "has really suffered as a result of the indifference displayed by railroad labor."

The commissioner said his group is "not convinced" that the ICC formula for apportioning common expenses between freight and passenger service "accurately pictures the true extent of the passenger service deficit." If only out-of-pocket losses were considered, he said, they would probably be something less than $200 million. Earlier, Mr. McDonald estimated the 1954 passenger deficit at $665 million, a 6% drop from 1953, but still a near-record figure.

Speaking of the effect of mail diversion on passenger service, Mr. Mc-

Briefly . . .

. . . **During May,** commuters on the New York Central's Hudson, Harlem and Putnam divisions are being provided with coupon-type tickets, designed to "show how many people ride which trains and between what stations," and to "help plan how to give a service suited to needs." The study also is expected to indicate whether some fare adjustment may be called for "to assure continuation of adequate commutation service."

Milwaukee Road Completes Major Modernization Project

ROADBED for one of the 70 tracks in the Bensenville yard is roughed out by an INTERNATIONAL TD-14A crawler. All Milwaukee freight cars entering, leaving or passing through Chicago are now switched over the new system.

$5½ Million Bensenville, Illinois, Classification Yard Finished Ahead Of Schedule With IH Crawlers

The world's largest freight classification yard, an installation using both route switching and retarder speed control, has been placed in operation by the Milwaukee Road at Bensenville, Illinois.

The heavy work on this job . . . building new track beds, tower excavations, raising old tracks, custom dozing, even final clean up . . . was handled by two INTERNATIONAL crawlers, a TD-14A with bulldozer and a TD-9 with front-end shovel. With these dependable INTERNATIONAL crawlers on the job, the giant project was finished weeks ahead of schedule.

Whether it's general maintenance work around the yard or a major project out along the right of way, INTERNATIONAL builds a crawler that can do the job more efficiently, with greater economy.

For proof, call your INTERNATIONAL Industrial Power Distributor today. He'll demonstrate the INTERNATIONAL crawler with blade or scraper best for any job, at any site you select.

PART of the Illinois countryside covered by the Bensenville classification yard is to be seen in this view from the hump. Yard has a capacity of 5300 cars.

INTERNATIONAL HARVESTER

INTERNATIONAL®
INDUSTRIAL POWER

MAKES EVERY LOAD A PAYLOAD

INTERNATIONAL HARVESTER COMPANY, CHICAGO 1, ILL.

Donald said NARUC tried unsuccessfully to get the Post Office Department to halt its experiments because of their effect on rail service. Failing here, however, the association plans now to seek legislation "amending the national transportation policy to the end that our railroad passenger services may be preserved in the interest of the public and the national defense."

Labor & Wages

Referee Settling L&N Dispute

Two-month-old strike ended with agreement to submit issues to arbitration—Settlement plan, which will be binding, expected this week

Referee Francis J. Robertson's binding recommendations for settling the dispute which caused the strike against the Louisville & Nashville and its affiliates were expected sometime this week.

The referee, a Washington attorney who had been in National Railroad Adjustment Board cases and on an emergency board, was chosen by the National Mediation Board, pursuant to the agreement for binding arbitration which was reached by the parties.

Strike Ended — The arbitration agreement resulted from persistent mediatory efforts of NMB's chairman, Francis J. O'Neill. It ended the strike of nearly two months duration, which involved the L&N, the Nashville, Chattanooga & St. Louis and the Clinchfield from its beginning March 14, and the Kentucky & Indiana Terminal from April 25. The strike ended at 6:00 a.m. May 11, but restoration of passenger services was not expected until several days later.

Referee Robertson, chosen by NMB after the parties failed to agree on an arbitrator, began closed hearings in Washington May 12. It was understood that he would make his recommendations by the latter part of this week.

Although operating unions later called their members out, the dispute which caused the strike arose out of demands of non-operating unions for settlement of their health-and-welfare case on the same basis as the railroads generally had settled. The L&N and its affiliates offered an alternative, non-compulsory plan under which the employee's monthly payments would be less than under the national plan (*Railway Age*, March 14, page 7).

The health-and-welfare plan was part of the "non-op's" so-called "fringe benefits" case, which was settled on a compromise basis after having gone through an emergency board proceeding (*Railway Age*, January 24, page 16). The strike call against the L&N and its affiliates listed all of the original "fringe benefit" demands as issues.

Figures of the Week

3 Months' Net Up $83 Million

Total was $175 million compared with $92 million in first quarter of 1954—Net railway operating income rose from $145 million to $232 million

Class I railroads had estimated net income, after interest and rentals, of $175 million in this year's first three months, according to the Bureau of Railway Economics of the Association of American Railroads. Their net railway operating income, before interest and rentals, was $232,177,806.

Both figures were substantially above those of 1954's first quarter, the estimated net being up $83 million (from $92 million), and the net railway operating income up $87 million (from $145 million).

March results showed that estimated net income for the month was $77 million, compared with $50 million in March 1954. Net railway operating income for the month was $97,733,239, compared with $69,105,788.

In the 12 months ended with March 1955, the rate of return averaged 3.59%, compared with 3.78% for the 12 months ended with March 1954.

Gross in the first three months amounted to $2,298,884,456 compared with $2,265,312,671 in the same period of 1954, an increase of 1.5%. Operating expenses amounted to $1,763,808,781 compared with $1,836,579,222, a decrease of 4.0%.

Nineteen Class I roads failed to earn interest and rentals in the first three months, of which eight were in the Eastern district, two in the Southern region, and nine in the Western.

CLASS I RAILROADS—UNITED STATES

	Month of March 1955	1954
Total operating revenues	$ 825,160,081	$ 799,305,586
Total operating expenses	612,028,913	627,577,859
Operating ratio—per cent	74.17	78.52
Taxes	93,921,574	81,846,577
Net railway operating income (Earnings before charges)	97,733,239	69,105,788
Net income, after charges (estimated)	77,000,000	50,000,000
	Three Months Ended March	
Total operating revenues	$2,298,884,456	$2,265,312,671
Total operating expenses	1,763,808,781	1,836,579,222
Operating ratio—per cent	76.72	81.07
Taxes	241,932,325	222,990,391
Net railway operating income (Earnings before charges)	232,177,806	145,201,184
Net income, after charges (estimated)	175,000,000	92,000,000

Freight Car Loadings

Loadings of revenue freight in the week ended May 7 totaled 740,935 cars, the Association of American Railroads announced on May 12. This was an increase of 10,798 cars, or 1.5%, compared with the previous week; an increase of 92,981 cars, or 14.3%, compared with the corresponding week last year; and a decrease of 24,476 cars, or 3.2%, compared with the equivalent 1953 week.

Loadings of revenue freight for the week ended April 30 totaled 730,137 cars; the summary, compiled by the Car Service Division, AAR, follows:

REVENUE FREIGHT CAR LOADINGS
For the week ended Saturday, April 30

District	1955	1954	1953
Eastern	126,680	110,811	138,210
Allegheny	148,591	117,704	161,706
Pocahontas	59,724	46,323	53,986
Southern	108,044	116,789	130,906
Northwestern	111,319	98,417	125,064
Central Western	116,650	103,899	112,033
Southwestern	59,129	53,982	59,594
Total Western Districts	287,098	256,298	296,691
Total All Roads	730,137	647,925	781,499
Commodities:			
Grain and grain products	48,585	47,049	41,312
Livestock	9,083	8,333	9,071
Coal	119,207	96,363	122,328
Coke	11,611	7,048	14,114
Forest Products	43,183	40,097	43,919
Ore	58,923	45,503	83,890
Merchandise l.c.l.	60,958	61,891	70,062
Miscellaneous	378,587	341,641	396,803
April 30	730,137	647,925	781,499
April 23	705,848	626,182	779,804
April 16	674,389	612,884	751,628
April 9	663,462	606,790	621,139
April 2	659,059	599,302	704,517
Cumulative total, 17 weeks	11,153,839	10,456,220	12,058,417

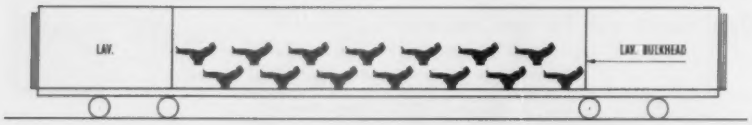
In Canada.—Carloadings for the seven-day period ended April 21 totaled 70,191 cars, compared with 61,512 cars for the previous seven-day period, according to the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada:		
April 21, 1955	70,191	31,086
April 21, 1954	59,245	27,126
Cumulative Totals		
April 21, 1955	1,064,089	494,322
April 21, 1954	1,028,850	451,099

Equipment & Supplies

PASSENGER CARS

85' DE LUXE COACH 40 PASSENGERS IN NEARLY FULL RECLINE



DAY-NITE-DUPLEX 56 PASSENGERS IN NEARLY FULL RECLINE

THROUGH A DUPLEX ARRANGEMENT of accommodations, in which every other coach seat is elevated two steps above aisle level, the day-nite coach would have a capacity of 56 passengers in an 85-ft car. A regular reclining-seat coach handles 40 passengers.

"Day-Nite-Duplex" Cars Offer Low-Cost Comfort

The new "Day-Nite-Duplex" coach, unveiled by Pullman-Standard Car Manufacturing Company May 2, is designed to give the budget-minded traveler maximum comfort for overnight travel (*Railway Age*, May 9, page 11).

With accommodations for 56 passengers, an 85-ft car will have more capacity than a regular single-level coach (see accompanying sketch). Five of the day-nite units could replace seven conventional cars.

Cost of the duplex car is expected to run about $20,000 more than a single-floor-level 40-seat deluxe coach—increasing cost about one-sixth while increasing seats more than a third. Total weight of the car, meanwhile, will also be increased much less than seating capacity.

Interior cleaning and maintenance of "Day-Nite-Duplex" cars should be lessened, according to Pullman-Standard, by the extensive use of aluminum sheeting and plastic coverings on the sides, ends and partitions. The plastic is bonded to the wall structural surface under pressure for permanency.

Space For Bags—Extra large baggage and parcel spaces are located at the seats and bags can be stowed easily and quickly. A spokesman for Pullman-Standard said space also can be provided in the cars for food and drink vending machines.

Individual reclining seats, on 5-ft, 5-in centers, are used in the upper and lower rooms of the duplex car. There are no center arm rests but each individual seat has an individual arm rest on the outside. Each seat has its own separate hinged leg rest for use when the seat is in the reclining position. Roomette-type windows are provided in each accommodation.

Pullman-Standard figures the day-nite car offers potential revenue, on a 2,200-mile one-way trip, of $3,073.40, or $658.59 more than present coaches. The company does not believe the new coach accommodation will affect the operation of section or roomette cars.

Egypt Plans to Buy Over $16 Million of Equipment

Egypt and the U. S. reportedly have agreed to use for expansion and development of Egypt's railroads $16,163,000 of the $40,000,000 to be provided by U. S. economic-development-assistance funds, according to Foreign Commerce Weekly. Egypt will purchase diesel-electric road and switching locomotive units, crossties, machine tools, coaches and baggage cars.

New Haven Will Buy 6-Car Streamline Train from Budd

Purchase of a third high-speed streamline train was authorized last week by the New Haven's board of directors. It will be built by the Budd Company at a cost of $1,200,000, and is to be ready for delivery in the spring of 1956.

The train—which is in addition to those previously ordered from the Pullman-Standard Car Manufacturing Company and ACF Industries (*Railway Age*, April 4, page 8)—will be six cars long and seat 468 passengers. It is a modification of Budd's rail diesel cars. Each car will be self-propelled by two 300-hp diesel engines, with torque converter drive under each car.

An engineer's cab will be at each end of the train, eliminating the need to turn. The problem of third-rail electric power for Grand Central Terminal, New York, will be solved by providing contact shoes on each car which can supply power for special d-c motors on the idler axles of each car. An innovation in the train will be the placing of the cooling housing in the side walls of each car rather than on the roof.

LOCOMOTIVES

The **Chesapeake & Ohio** directors have authorized purchase of forty 1,750-hp diesel units.

FREIGHT CARS

The **Bessemer & Lake Erie** has ordered 20 70-ton covered hopper cars from the Pullman-Standard Car Manufacturing Company at an approximate unit cost of $7,500.

The **Boston & Maine** has announced a modernization program which includes rebuilding 500 box cars at its Concord, N.H., shops.

The **Chicago Great Western** has ordered 50 70-ton insulated box cars from the Thrall Car Manufacturing Company at an approximate cost of $600,000. Deliveries are expected during July and August.

The **Pecos Valley Southern** has ordered one caboose from the International Railway Car Company at an estimated cost of $14,500. Delivery is expected in September.

The **Western Pacific** has ordered 35 bay-window steel cabooses from the International Railway Car Company at an approximate cost of $500,000. The cars will have roller bearings and high-speed trucks, cushion draft gears, electric lights, radio communication with locomotives and dispatchers, and modern sanitary facilities. Delivery is expected late this year. The cars are the last to be ordered of 355 units authorized by the directors (*Railway Age*, March 21, page 74, and March 28, page 7).

Financial

"Opportunities for Earning Power Still Remain"—Kusik

Although dieselization is virtually completed, there still remain within the railroad industry a number of major new earning power opportunities, John E. Kusik, vice-president—finance of the Chesapeake & Ohio, told the eighth annual convention of the National Federation of Financial Analysts Societies at New York on May 9. With William H. Schmidt, Jr., executive editor of *Railway Age*, Mr. Kusik spoke at a

(Continued on page 165)

(Advertisement)

A CARBUILDER LOOKS AT PASSENGER TRAFFIC FUTURES

Interview with Charles W. Bryan, Jr., President, Pullman-Standard Car Manufacturing Company, foremost builder of railway rolling stock.

Charles W. Bryan, Jr., President,
Pullman-Standard Car Manufacturing Company.

The unsubsidized, high tax paying railroads of the Great American Railway System are drawing battle lines for the economic fight to maintain passenger transportation leadership. Their best weapon is the speed, comfort, safety and economy they offer in mass handling of passengers. The builders of equipment for this purpose, the carbuilders, have been and will continue to be important to this fight. Its naturally close alliance with the railroad industry qualifies Pullman-Standard to make some predictions about the form of things to come in the passenger car field.

This interview with Charles W. Bryan, Jr., Executive of Pullman-Standard Car Manufacturing Company, indicates the support the leading carbuilder will continue to give its railroad customers. Mr. Bryan prefaced his remarks by saying, "I am pleased to serve as spokesman for the many veteran carbuilders within the Pullman-Standard organization."

Q . . . From the standpoint of the economics of mass transportation, does it appear that railway passenger equipment will evolve an individual type of car or train that will enable all railroads to win the transportation leadership battle?

A . . . We see no possibility of such an eventuality. And the reason why no specific equipment units will become all things to all people is that operating and passenger carrying conditions are seldom the same on any two roads. In fact, there are tremendous variations within the structure of the individual roads. Conditions call for extremes ranging from high density, low cost commuter traffic to super-deluxe extra fare transcontinental traffic, with all the attendant refinements and luxuries. How can any one type and design of equipment do the proper job, in light of these obvious and basic conditions?

Q . . . To what extent does the new P-S Train X type of equipment appear to be the prototype of what the roads will operate in the future?

Train X and other lightweight trains of its type are setting the stage for another major period of passenger carrying equipment economics.

A . . . Train X and other lightweight trains of its type are setting the stage for another major period of passenger carrying equipment economics. We regard it as another step in establishing realistic goals for railway passenger car design that will reduce operating costs and improve passenger revenues. It is a complete train redesign that offers the traveler entirely new concepts of rail transportation at low first cost, and makes it possible for the railroads to build traffic, reduce operating and maintenance costs and retain more of gross revenues.

Q . . . What is the reaction of the roads to the availability of such advanced design equipment?

A . . . It is just what would be expected. Roads whose operating conditions indicate reason to consider this equipment are doing so. Orders have been placed by those whose decisions have been made. Other roads, aware of their individual operating conditions, are waiting for reports of Train X performance, before making any commitments. In spite of the fact that public attention is focused on the far-advanced Train X type equipment, most roads are just as interested in new ideas for passenger equipment of a more conventional nature.

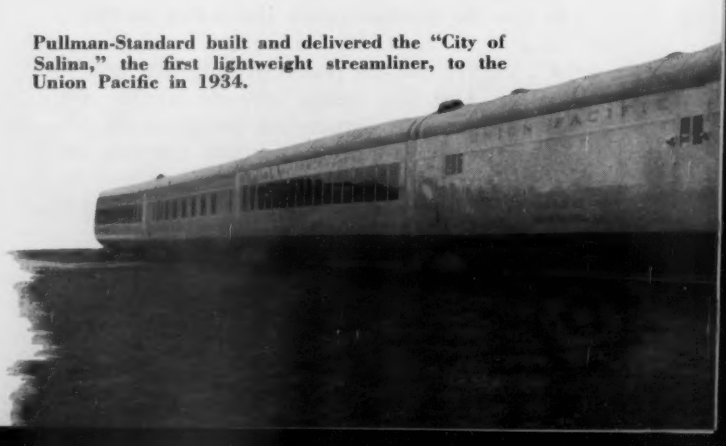
Q . . . How much of its carbuilding facilities is Pullman-Standard concentrating on Train X type equipment?

A . . . Pullman-Standard has always been known as a builder of a broad line of both passenger and freight equipment. And so we are devoting sufficient of our resources to the Train X equipment to insure engineering and building those trains with all the skill and quality for which we are noted. And, at the same time, we are continuing to concern ourselves thoroughly with equipment advances and innovations for those customers for whom Train X, either temporarily or permanently, offers no economic advantages.

Q . . . Have the railroad industry and Pullman-Standard undergone similar periods of transition in the past?

A . . . Certainly. We cooperated with the railroads in pioneering the era of the streamlined train, for example. We built and delivered the first lightweight streamliner, the "City of Salina," to the Union Pacific in 1934. This train proved itself to be economically sound from the operating standpoint, and established the validity of the theory of light-weight streamlined equipment. It produced nearly 900,000 miles of revenue—building travel over an eight year period. This is proved by the fact that the "City of Salina" cost $230,997 and earned a total gross revenue of $717,685. This is a good return, as anyone will agree, and it confirmed the soundness of an industry entry into an era of new equipment.

Pullman-Standard built and delivered the "City of Salina," the first lightweight streamliner, to the Union Pacific in 1934.

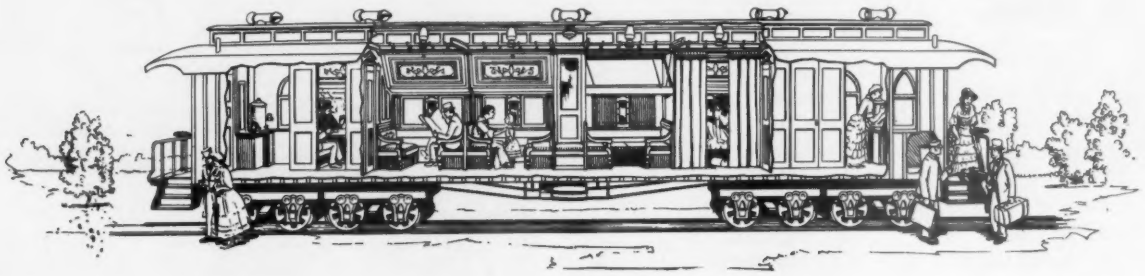


Q . . . Has Pullman-Standard traditionally influenced the advancement of the railroad industry within the structure of American transportation?

A . . . Of course. Pullman-Standard and the other carbuilders have cooperated with the railroads in setting the pace for rail transportation as the American public knows it today.

Q . . . Which has been more important to the development of passenger carrying equipment—public demands or railroad needs?

A . . . Since the public is the railroad's customer, the public must be given what it wants. But since few members of the public are well backgrounded in railroading, it has been up to the roads and the carbuilders to exceed the general demands of the public and make them prefer rail travel to all others. And that has always been the case. One of George Pullman's fundamental policies was to develop methods that would help railroads improve earnings. Three years before he created this organization in 1867 he designed and built a new concept of passenger sleeping car . . . the old "Pioneer". It was beyond anything the public had imagined at the time, and was built higher and wider than other cars in order to attain maximum luxury. The "Pioneer" was made part of Abraham Lincoln's funeral train for the trip from Chicago to Springfield, and its size caused hurried alterations to platforms and bridges to allow it to pass. These events focused attention on the "Pioneer", and the resultant demand for accommodations helped railroads and carbuilders initiate the economics of a new chapter in railroad progress.

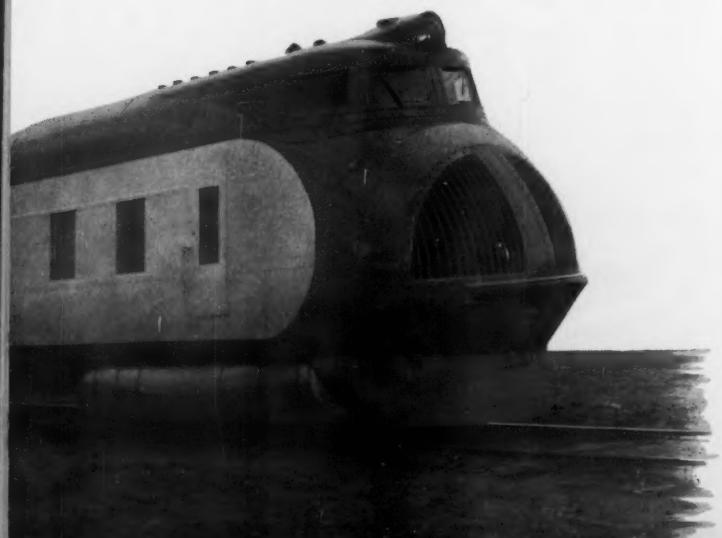


The "Pioneer", built in 1864, started a completely new trend in sleeping car design. It offered unprecedented comfort to rail travelers.

Q . . . Does that mean that the railroads are sometimes forced to accept equipment concepts that originate at Pullman-Standard?

A . . . Certainly not. We have always felt that it's part of our job to offer the best, most advanced line of passenger and freight equipment possible. This is one way we serve our customers, the railroads. And they, in turn, are happy to use our rolling stock for the same purpose . . . to serve their customers. The roads would be equally ready to reject any equipment offerings that they didn't think would do the job.

In addition, the production of passenger cars has traditionally been a customized business . . . we give the railroad buyer what he wants. And that's the way we'll continue to operate. But we will also continue to strive for equipment advances, and believing in them ourselves, we'll attempt to sell them to the roads.



Q . . . You said that no specific train or piece of equipment could become all things to all railroads. Then, how does the Pullman-Standard program of passenger car standardization fit into the picture?

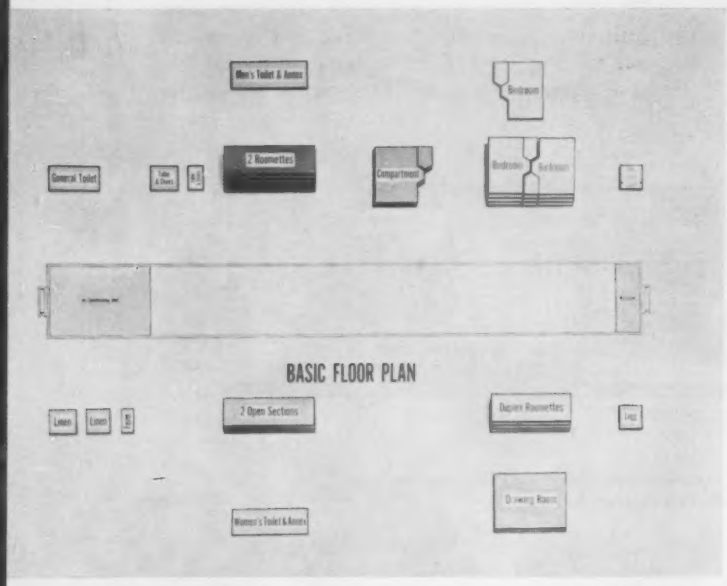
A . . . As I said, we'll give the railroad executives what they want. But sometimes over-customization impinges a severe cost penalty on the price of equipment. For example, buyers' preferences on customization of conventional equip-

ment have often added as much as $12,000 to the cost of each car, in a given lot of cars. We feel that exercise of such preferences is uneconomical. Our flexible standardization allows wide customization without dollar penalties and unjustifiably high first cost. With this plan we are not advocating across the board equipment standardization. We are merely suggesting alternates that are "equivalent of" at tremendous savings.

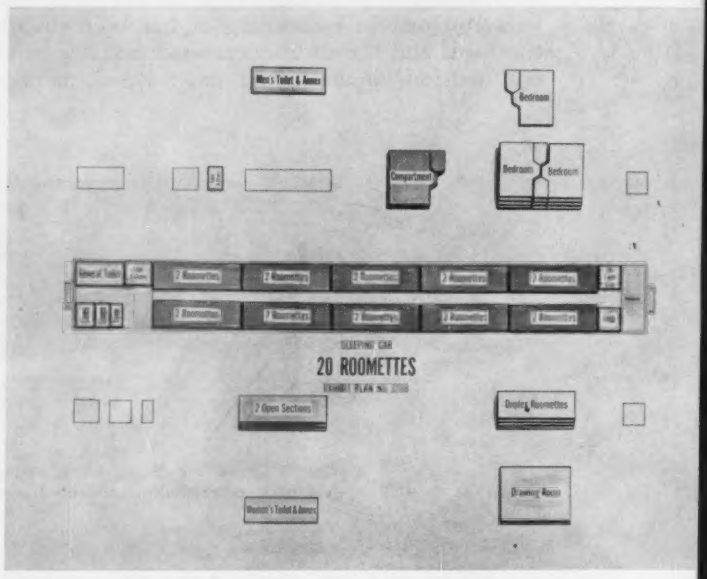
Q . . . How can your plan possibly give customization while eliminating the cost penalties?

A . . . After the "City of Salina's" successful introduction, P-S lightweight streamlined theories made such sense to the railroads that we built three-fourths of all lightweight passenger cars produced by the industry between 1934 and World War II. Customization was becoming popular, but wasn't whetted to a razor edge. After the War, the passenger transportation race was on. Everyone needed new equipment, and everyone sought to attract passengers with car designs that became more and more customized and therefore relatively more costly. Not that they were necessarily better and better cars . . . they were merely more and more customized.

Large lots of cars and single cars all had to be expressions of buyers' preferences. For instance,

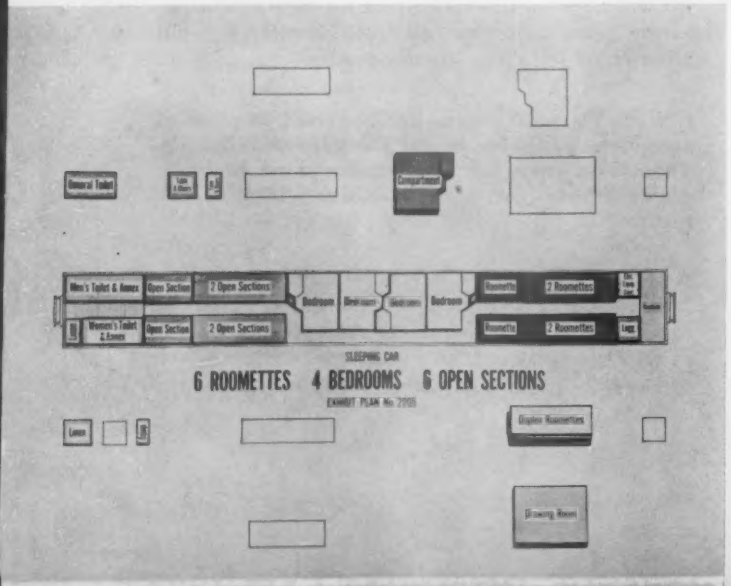


Modular planning—Basic outline floor plan covers an 85-foot long car, with air conditioning and vestibule locations. Around the unit are shown pre-engineered units, or modules, the use of which gives flexibility in plan arrangements.

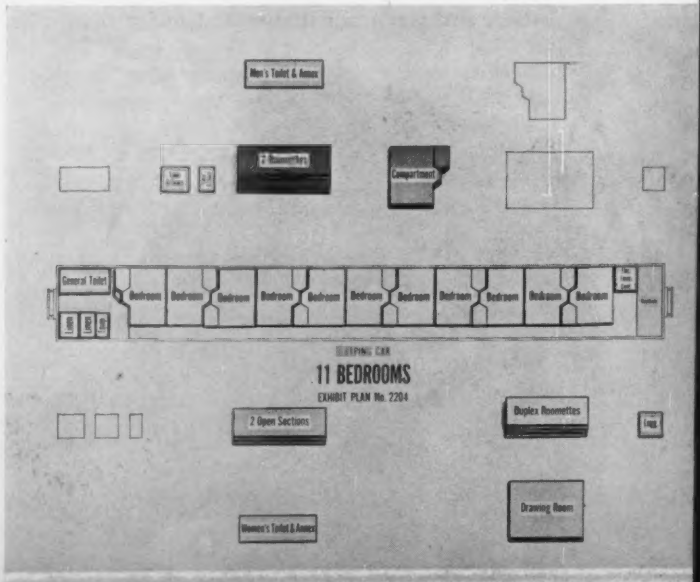


Modular planning—Basic sleeping rooms and sections are engineered as units, together with electric lockers, general toilets, air conditioning installations, linen equipment lockers, etc., into a desired floor plan to meet buyers' specifications.

Desired floor plan arrangement, dictated by railroad needs, can be worked out through use of the module design principle.



Pullman-Standard now has available six basic floor plans, each of which can use modular planning to meet railroad requirements.



in an eight year period we built 1,235 domestic non-sleeper passenger train cars from 151 different floor plans for 41 different customers.

The tremendous amount of engineering that went into all of these variations can be imagined and had to be priced. For an industry engaged in an economic struggle, the railroads paid a tremendous cost penalty for as intangible a benefit as "preference".

Pullman-Standard designed its flexible standardization program to alleviate this dangerously growing trend. Our experience tells us that certain ways of building cars are best, that certain arrangements of the equipment on the cars are best. Further, these arrangements and techniques work equally well on any type of conventional car. In the floor plans of cars, layout experience has taught us that certain modules, or "packages" of accommodations are best. For example, we know what is most economically beneficial in a roomette, a section, a compartment and in the other area-occupying facilities found in a car. So we say to our customers, "Use our tested and proved arrangements for your cars. Let us suggest ways in which you can combine such accommodations as our already engineered roomettes, bedrooms, sections, etc. for exactly the most productive floor plans for your operating conditions. Since we've already engineered these units we know they're right, and you'll save the extra money completely customized cars would require." Acceptance of this carbuilding concept by the railroads is constantly increasing.

Q . . . But how do you satisfy the requirement of customization with these pre-engineered modules and facility arrangements?

A . . . In addition to being able to put the modules together in a wide variety of combinations, the buyer can achieve personalization and identity through many other devices. Within the car itself we are in a position to provide almost limitless decor, colors, fabrics, metals and appointments for the buyers' choice. The exterior of the car can be of Cor-ten, Stainless Steel or Aluminum, it can be painted or natural, smooth or corrugated, or combinations of these. Exterior paint schemes and designs are completely of the buyers' choosing, too. In this way these open-for-inspection areas that must also appeal to the passenger can be customized to any degree the buyer prefers. Only those points which deal with the basic construction of the car have been planned with flexible standardization. And these latter areas are where we can give our customers tremendous savings. We have been working hard for modular construction acceptance since World War II, and it's gaining ground constantly.

The Pullman-Standard 1945 "Tomorrow's Trains Today" exhibition exposed, for the railroad industry's inspection, new concepts of passenger equipment to aggressively meet competition.

Q . . . What else did Pullman-Standard do after World War II to cooperate with the railroads in the economic battle that was beginning to be evident?

A . . . When the end of World War II was in sight, and even before we had been demobilized, we invited the railroad industry's inspection of our concepts, plans and recommendations for the future. At that time we unveiled a passenger equipment line we felt certain would enable the railroads to compete aggressively against the inroads in rail business that would obviously be attempted by automobiles, buses and planes.

We recognized, as did many of the railroads, that the economics of such a struggle dictated need for low cost, lightweight, dependable, passenger cars that offered maximum public appeal with minimum overhead, maintenance and repair. And we all knew that the postwar transportation campaigns would be waged on grounds to be named by the public but surely including higher levels of service in all its aspects.

To meet the challenge Pullman-Standard offered advanced equipment designs, thought provoking recommendations on terminal construction and even improvements in such important details as handling of passengers' luggage. Some of the passenger equipment developments we keynoted in 1945 were: Distinctive styling of both interiors and exteriors which combined colors, metals and paints for maximum public recognition and blend with the road's environment; New concepts of passenger comfort and luxury in Drawing Rooms, Compartments, Double Bedrooms and Roomettes, additionally enhanced by interior styling inspired by the terrain through which the equip-

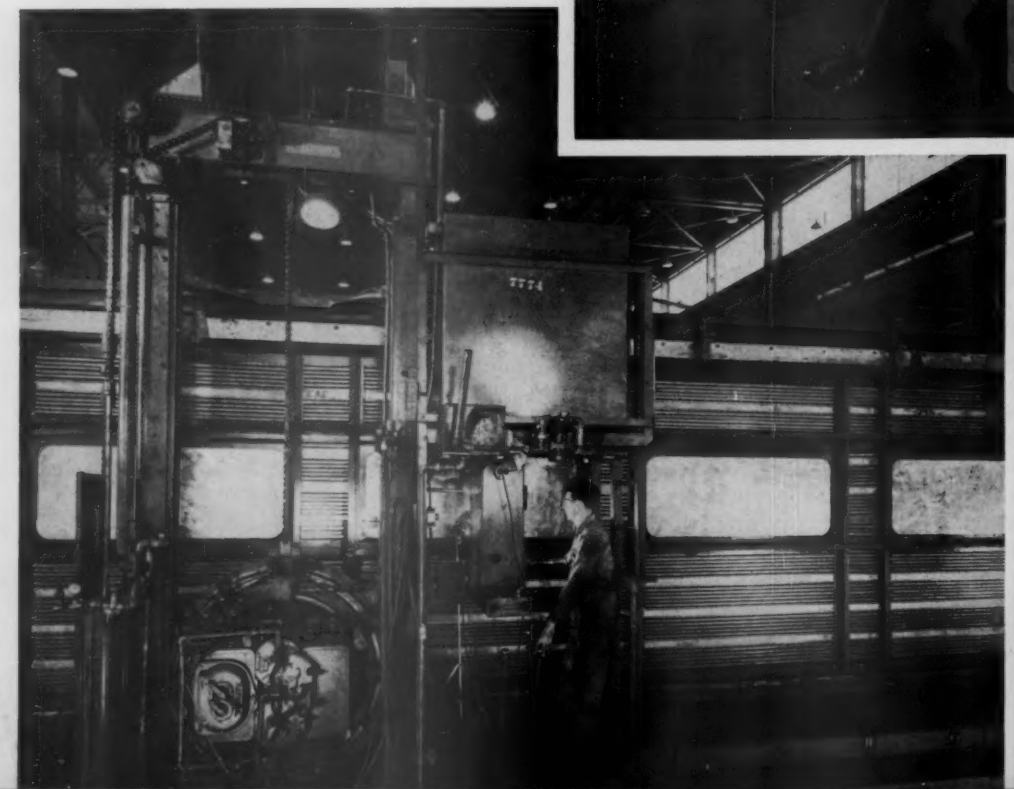
ment operates; Low cost privacy in duplex roomettes; Economy and comfort in the 3-tier Sleeper; Diagonal seating for increased dining car pleasure and efficiency; The ultra-new high revenue producing Day-nite Coach; The Threedex high capacity coach; and the versatile Recreation Car.

In addition to such new passenger accommodation recommendations Pullman-Standard offered the industry a number of important technological advances. These included better lighting and communications, improved air conditioning, insulation, ride-smoothing trucks and more effective braking. And we offered further dead-weight elimination through broader use of aluminum,

◄ One Pullman-Standard idea for providing coach passengers with greater comfort was the Day-Nite Coach featuring leg rest seats.

Full train styling which combined colors, metals and paint for maximum public recognition, plus interior styling inspired by the terrain through which the train operates became very popular. ►

We pioneered, perfected and patented a number of exclusive advances in welding equipment and procedures. ▼



(Advertisement)

improved methods of using high-strength steel framing in cars, and new techniques of research. We pioneered, perfected, and patented a number of exclusive advances in welding equipment and procedures.

All these advances were presented to the railroad industry as a normal service. Many of the innovations were accepted immediately.

Q . . . Of these post war plans, what materialized and are now in service?

A . . . We are using many new production techniques in our daily work. As far as passenger cars are concerned public and railroad acceptance has been gratifying. Our leg rest seat, designed for greater coach comfort caught on at once and has become a criterion for coaches seeking public approval. And our diagonal diner allowed greater seating capacity with more comfort. This was an important step toward putting dining facilities on a paying basis.

Then we engineered and built the first new dome cars for the General Motors "Train of Tomorrow". The dome idea was very well accepted, and shortly thereafter we were building similar cars for a large number of railroads including the Santa Fe. They put their new P-S dome cars into service on the new Super Chief in 1951. It

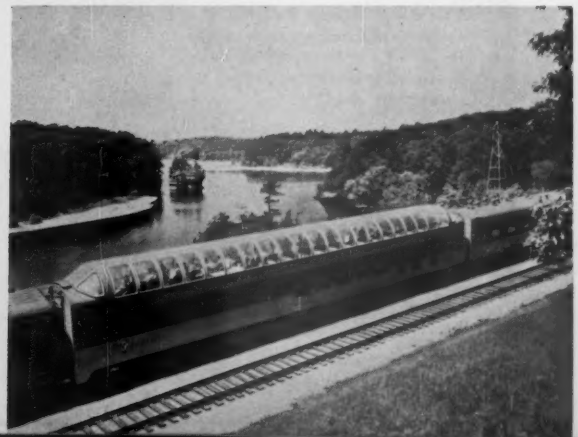
Pullman-Standard engineered and built the first new dome car for General Motor's "Train of Tomorrow".

We built "The Only Private Dining Room on Wheels", the Turquoise Room, in a Santa Fe dome car.

Pioneering in dome cars led us to the development of the first full length dome car.

Our diagonal diner allowed greater seating capacity with more comfort and permitted diners maximum view of scenery. ▼

The Milwaukee Road uses our full length domes on their famous Olympian Hiawatha and Twin Cities Hiawatha.



Our Modular "S" type accommodations enable the Canadian National to offer passengers new high standards of roomy comfort.

The Canadian National accepted our recommendations for modular pre-engineered flexible standardization to a large extent.

is interesting to note that these cars are equipped with passenger-pleasing cafe-lounge areas. In fact, the Santa Fe had us build its exquisite Turquoise Room into one of their Super Chief domes. They refer to the Turquoise Room as the "Only Private Dining Room On Wheels". Pioneering in dome equipment led us to the development of the first practical full-length dome cars. The Milwaukee Road is using our full-length domes on their famous Olympian Hiawatha and Twin Cities Hiawatha trains.

Q . . . Wasn't the Canadian National a customer for a large lot of Post War cars?

A . . . The Canadian National has been a good customer for years. Specifically they ordered 141 new passenger cars from us, which we began delivering in January '54. We completed the order in time for their 1954 tourist season. These cars contain a wide variety of fine accommodations for sleeping, dining and travel comfort. The CNR accepted our recommendations for modular pre-engineered flexible standardization to a large extent, and are appreciating the resultant economies and performance. Our modular "S" type accommodations enable them to offer passengers new high standards of roomy comfort. The Canadian National Cars are chock full of

The Long Island Railroad came to Pullman-Standard for advice in helping solve its need for high capacity commuter coaches.

P-S refinements that matured and became high revenue producing realities since the war.

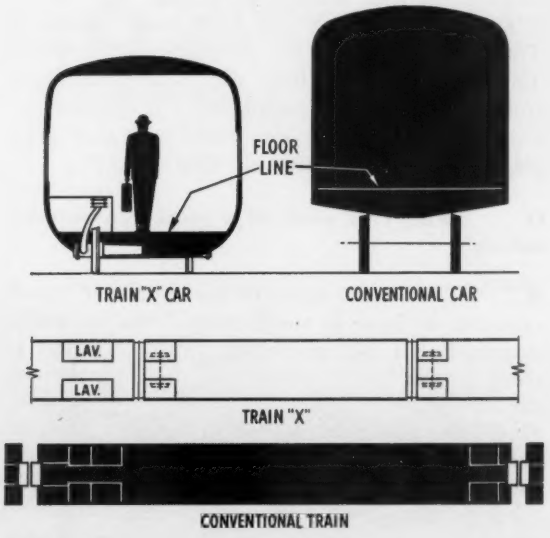
Q . . . What developed in the mass transportation area, such as commuter service?

A . . . The Long Island Railroad ordered 125 air conditioned, 120-passenger, commuter cars from us for delivery in June, 1955. These will be used for short fast runs where high capacity is very important. Their P-S cars will provide the type of facilities the passengers demand, and will safeguard revenues by keeping maintenance and operating costs down.

These examples of equipment by no means cover all we built or are building, but they do serve to illustrate the scope of the Pullman-Standard passenger equipment line.

Q . . . What will Pullman-Standard offer in the future that will help the railroads achieve the mass passenger handling that is necessary for improving their economic position?

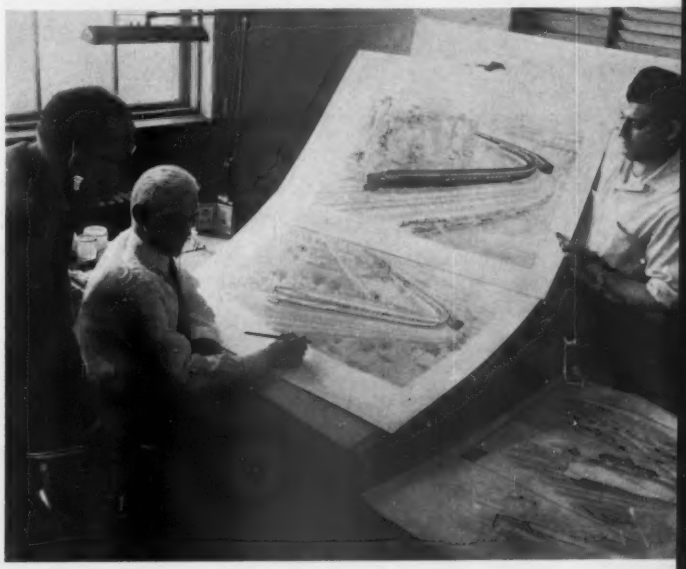
A . . . Our aim is, as previously stated, to help the roads all we can, and we plan to build better and better cars that have wide appeal and acceptance plus the ability to generate high revenue. We'll give both the public and the roads what they want. But to be specific about equipment, Train X is the first thing that is brought to mind because of recent publicity. We're building two trains now . . . one for the New York Central and one for the New Haven. These trains will be alike and will each consist of five low, light cars powered by a new lightweight but powerful diesel engine. These trains will weigh only a fraction of the tonnage of a conventional train . . . and that will mean great operational and maintenance savings. These entire trains are new . . . design, ride, comfort, weight, speed, safety, economy are all brand new.



Comparison of Train X Car height and length with conventional passenger car.

Q . . . With everything new, isn't Pullman-Standard hard pressed to get all the designs, engineering and testing done?

A . . . The answer to that one is both yes and no. Of course we're racing to get all the loose ends and final versions nailed down, but as far



Train X is all new . . . design, ride, comfort, weight, speed, safety, economy are all brand new.

Prototype Train X equipment enables us to approach our present day Train X orders with confidence.

Plywood and cardboard mock-ups assure us today that tomorrow's dome cars will be right.

An entirely new type of double deck coach for high traffic, high revenue service gets the mock-up treatment.

Windows must be located for maximum passenger enjoyment. Trial by mock-up assures correct placement.

as we're concerned much of the work on Train X was done some years ago. You see, in 1950 in cooperation with Robert R. Young, then of the C & O, we designed and built some prototype Train X equipment for experimental purposes. This equipment has been used as a guinea pig, and is enabling us to approach our present day Train X orders with the confidence that prior planning and experience develop.

Q . . . What's in work of a more conventional nature?

A . . . Of course, many of the details of developments we have in work are still not for publication. But I can give some hints of things to come in the Pullman-Standard line of passenger car equipment.

One thing is a new concept in the area of dome cars. These domes will earn new revenues and new high degrees of rider acceptance. The pictures on this page illustrate some of the mock-up steps we are going through with these new domes, and detail the care with which we try everything for size with cardboard and plywood to be sure our designs are right.

Q . . . What is there in the high traffic area?

A . . . We have an entirely new type of double deck coach for high traffic, high revenue service

(Advertisement)

◄ Latest type of window sealing arrangement gets preliminary testing in mock-up before being considered for use in new equipment.

PATENTED AND
PATENTS PENDING

The new Day-Nite-Duplex Coach accommodation gives passengers maximum chaise-longue comfort for overnight travel.
▼

◄ Pre-building lighting tests guarantee proper illumination for passenger enjoyment and safety.

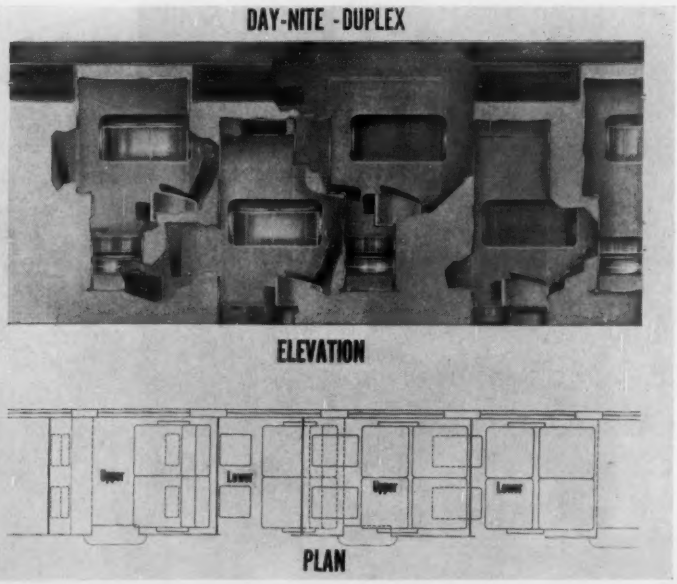
which will soon be delivered to Southern Pacific. Again, mock-ups confirmed what our blueprints spelled out, and helped us arrive at the very best in physical arrangements. Mock-ups are used by our engineers for a great many detailed car features. We find that a few cents spent on plywood and cardboard to prove such things as arrangement of windows for maximum visibility or number of foot-candles for adequate lighting mean not only better cars, but important dollar savings for our customers.

Q . . . What's new in budget-fare overnight coach travel?

A . . . We've got several things in this area that we know are going to be important to the roads and their passengers. For example, our new high-capacity Day-Nite-Duplex coach is designed to give budget-conscious passengers maximum comfort for overnight travel.

Through a duplex arrangement of accommodations, in which every other coach seat is elevated two steps above aisle level, Pullman-Standard's Day-Nite-Duplex would enable seating 56 passengers instead of the usual 44 in a standard length 85-foot deluxe coach. Increased capacity means increased revenue per car.

For a dollar comparison, we figure the Day-Nite-



In the Day-Nite-Duplex, every other coach seat is elevated above aisle level. It carries 56 passengers.

(Advertisement)

Popular "S" type accommodations are continually undergoing research for even greater passenger comfort and personal freedom.

In "S" type accommodations passengers control individual heat, air conditioning and lighting. They need not step into the aisle to raise or lower Roomette beds.

Duplex offers potential revenue on a 2,200 mile one-way trip of $3,073.40, or $658.59 more than present coaches. On a 1,000 mile one-way trip the Day-Nite-Duplex means an increase of $307.37, or a potential of over $100,000.00 a year. And best of all, this is the kind of equipment that the public wants, will accept and will ride.

Q . . . How about the more luxurious accommodations for sleeping?

A . . . Well, we're continually striving to improve our "S" type accommodations that have been so well received. These accommodations provide superb luxury and appointments with greatly increased comfort and personal freedom. Our "S" type bedroom and compartment can be expanded by removal of partitions and converted into extra-commodious extra-fare ensuite accommodations. And in all these new sleeping room designs, facilities are more private, controlled by the passenger, and require minimum attendant service and maintenance. We are certain they offer healthy economic benefits to the rail-users.

Q . . . Do you feel that the railroads will retain their importance to the traveling public?

A . . . We are tremendously optimistic about the future of railroad passenger travel. And we are betting heavily that we are right. Everything we are doing and have in our stockpile of plans is aimed at helping the railroads strengthen their position. We plan to continue our efforts to provide a complete line of passenger carrying equipment that will be what the public wants. And that equipment will be designed and built so that our customers, the railroads, will enjoy better returns on their invested dollars with smaller operational and maintenance costs. As we at Pullman-Standard see it, railroad cars and railroad mass handling of passengers in America can only move in one direction . . . forward.

Train X entrance mock-up proves that step-up to conventional platform allows ample clearance.

PULLMAN-STANDARD CAR MANUFACTURING COMPANY

79 EAST ADAMS STREET, CHICAGO 3, ILLINOIS

(Advertisement)

ROAD WASHES CARS STREAK-FREE

WITH A 75% SAVING IN CLEANER COST

Improved Oakite Compound No. 88 banishes road-soil — even coach windows come out spotless

The coach-washing compound used formerly at one terminal washed away accumulated oil, grease and crater dust all right. But while it solved one problem, it created another. Car sides and windows streaked badly. Dissatisfied with results, the company called Oakite.

The Oakite Technical Representative recommended Oakite Compound No. 88 for the job. He lent a hand—first, in seeing that the material was used properly; and, then, in making needed adjustments at the washer to get maximum results. In the first trial, a 3 ounce per gallon solution showed a big improvement. Not satisfied, the Oakite man reduced the concentration to 1 ounce. While this eliminated all streaking, it did not remove all dirt. So, 1½ ounces were used. That did it! With 125 cars washed that night, morning inspection revealed 125 shining examples of cleaning efficiency. Sides were streak-free, glass sparkled, dirt had vanished.

What's more, the cars not only were cleaned better, but also at 75% less materials-cost—each car taking about 10¢ worth of material instead of the former 45¢.

Oakite has materials for manual and automatic methods that speed and simplify car washing.

Proving that . . . in railroad cleaning, it pays to call in Oakite, because you get cleaning *results*, and not just cleaning *materials*.

IDEAS FOR SAVING in maintenance cleaning are given in this 56-page Booklet No. F-8055. Data include methods for cleaning running gear, filters, Diesel units, electrical equipment, and other tedious, time-consuming yard problems. For your free copy write Oakite Products, Inc., 46 Rector Street, New York 6, N. Y.

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OAKITE®

RAILWAY DIVISION

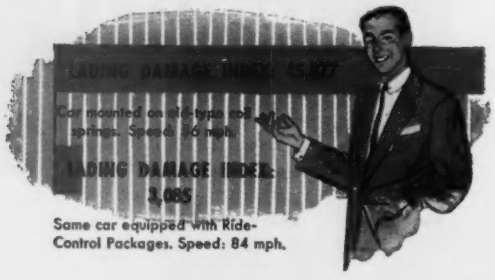
On the Chesapeake and Ohio, 6000 older cars are being equipped with ASF Ride-Control® Packages . . . so that

Now even "Chessie"®

"Chessie" is a registered trademark of the Chesapeake and Ohio Railway

The C&O is on record as being ". . . vitally interested in any plan that will move more goods, more efficiently." They found one answer in the self-contained, easy-to-install Ride-Control Package. In minutes, the Package-equipped car is ready to roll—almost as smoothly as a brand-new car on Ride-Control Trucks!

TEST RUNS—BEFORE AND AFTER PACKAGE INSTALLATION—SPEAK FOR THEMSELVES!



Same car equipped with Ride-Control Packages. Speed: 84 mph.

can ride their freights!

"Chessie" has long been a symbol of smooth, safe travel on crack C&O passenger fleets. Today, more than ever before, the same applies to their freight service.

Current modernization on the C&O calls for bringing some 6000 older cars up to modern riding standards with ASF Ride-Control Packages. Result: *cars that ride over fifteen times more smoothly!*

But aside from the obvious mechanical advantages is the equally important question of *economics.*

In deciding to use Packages extensively, the C&O considered the fact that a car available only for restricted use represents a potential revenue loss . . . that a more efficient car pool is the answer to carrying more freight per dollar invested in rolling stock . . . that safer hauls at higher speeds build traffic.

Not *all* older cars are equipped with Packages, of course. Some are so close to retirement that they don't justify even this small an investment. So each older car is evaluated as to its over-all condition. In short, the C&O Package program is sound economics in *practice* as well as in theory.

Would a similar program be practical on your road? *The facts prove that it's worth investigating.* Now is the time to find out why a small per-car investment in Ride-Control Packages can pay you big returns!

Bring your older cars up to modern riding standards . . . with

ASF® Ride-Control® Packages

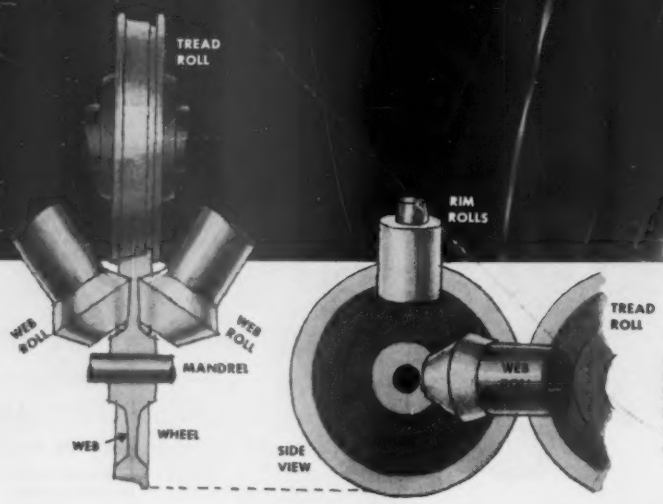
AMERICAN STEEL FOUNDRIES

410 N. Michigan Avenue, Chicago 11, Illinois

Canadian Sales: International Equipment Co., Ltd., Montreal 1, Quebec

USS One-Wear Wrought Steel Wheels

start rolling here and keep rolling



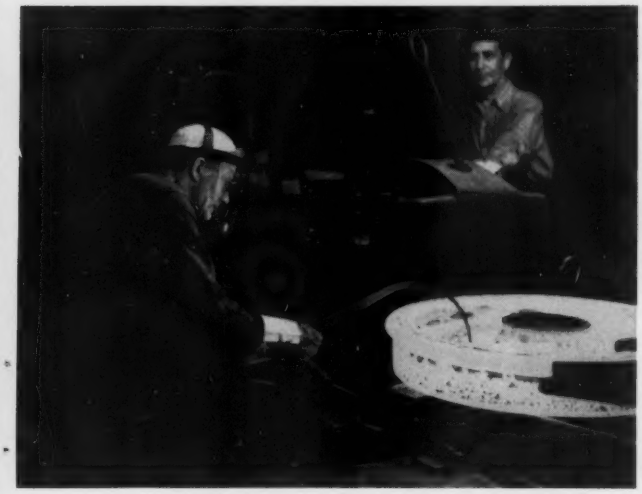
AS THE WHEEL BLANK SPINS on the mandrel, two powered rolls are rotated against the web, forcing the metal out against the tread-forming roll which shapes the tread and flange. The rim rolls, rotating against the rim, form it to the correct width and thickness.

safely for 200,000 miles or more

THIS is hot rolling—a critical step in the manufacture of USS One-Wear *Wrought* Steel Wheels.

The forged wheel blank, which has just been hub-punched and reheated, is brought from the furnace to the rolling mill by a charging machine. Giant tongs clamp onto the wheel and swing it into the rolls. As the hub lines up with the mandrel, the mandrel is shot into place. The driven rolls close on the wheel. The wheel begins to rotate. Suddenly, it's a whirling hot blur splashing pieces of hot scale through the air like a huge Fourth of July pinwheel. Perceptibly, the wheel increases in diameter as the rolls do their work. Then it slows and stops. Out goes the mandrel. The wheel, rolled to shape, is permanently identified by hot stamping—and is then on its way to the coning press, hub facing and rough boring machines, and final rigid inspection.

Controlled heating, forging, rolling and cooling produce uniformity in the structure of the steel and develop the desired hardness, ductility and strength —those qualities that make USS One-Wear *Wrought* Steel Wheels safer and more dependable than the ordinary wheel.



AFTER LEAVING the rolling mill each wheel is hot stamped with life long identification and its dimensions are checked against the required specifications with a set of king-size calipers.

USS ONE-WEAR *WROUGHT* STEEL WHEELS are your best investment because...

THEY LAST LONGER. . . USS One-Wear *Wrought* Steel Wheels will average 200,000 to 300,000 miles or more in normal freight car service.

THEY COST LESS. . . Their far greater life in any given service will reflect a *substantially lower annual cost* than that of the ordinary wheel, even though, initially, the USS One-Wear *Wrought* Steel Wheel costs a little more than the ordinary type wheel.

REQUIRE LESS MAINTENANCE...Rolling on USS One-Wear *Wrought* Steel Wheels, a car spends more time in *service* and less time on repair sidings, resulting in increased revenue to the railroad. Also, less frequent repair means reduced maintenance and lower labor costs.

SAVE UNSPRUNG WEIGHT. . . Because they are lighter than ordinary wheels, eight *Wrought* Steel Wheels under a 50-ton capacity car will save approximately 1,520 lbs. of unsprung weight, which is directly converted either into additional payload capacity or into savings due to the decreased load. Furthermore, reduced unsprung weight means less damaging impact on the track system.

Two strategically located complete wheel shops are ready to fill your orders for *Wrought* Steel Wheels: McKees Rocks (Pittsburgh), Pennsylvania shop, serving the East and Southeast, and the Gary, Indiana shop, supplying the Western and Southern Lines.

USS WROUGHT STEEL WHEELS

UNITED STATES STEEL CORPORATION, PITTSBURGH, PA.
TENNESSEE COAL & IRON DIVISION, FAIRFIELD, ALA.

USS

COLUMBIA-GENEVA STEEL DIVISION, SAN FRANCISCO
UNITED STATES STEEL EXPORT COMPANY, NEW YORK

4-2007

UNITED STATES STEEL

Traveler's Delight to NEW ORLEANS

ILLINOIS CENTRAL

Overnight in Luxury the "PANAMA LIMITED"

● The aristocrat of all-Pullman streamliners. Famous for its smooth, sleep-inviting ride . . . its quality service . . . its incomparable food. Convenient overnight schedule leaves daylight hours for work or play.

DAILY SCHEDULE
Central Standard Time

Southbound		Northbound
5:00 pm	Lv. Chicago	Ar. 8:45 am
2:30 am	Lv. Memphis	Ar. 10:50 pm
9:30 am	Ar. New Orleans	Lv. 4:15 pm

A Daytime Travel Treat the "CITY OF NEW ORLEANS"

● See the panorama of Mid-America from a picture window seat aboard this popular all-coach streamliner. Thrifty travel at its best, featuring roomy reclining seats with leg rests, congenial observation lounge and fine food.

DAILY SCHEDULE
Central Standard Time

Southbound		Northbound
7:50 am	Lv. Chicago	Ar. 11:40 pm
5:25 pm	Lv. Memphis	Ar. 1:45 pm
12:15 am	Ar. New Orleans	Lv. 7:15 am

Also Daily to New Orleans

"THE LOUISIANE"

Coaches and Pullmans

DAILY SCHEDULE
Central Standard Time

Southbound		Northbound
7:45 pm	Lv. Chicago	Ar. 8:00 am
8:40 am	Lv. Memphis	Ar. 7:15 pm
4:50 pm	Ar. New Orleans	Lv. 11.45 am

ILLINOIS CENTRAL RAILROAD

Main Line of Mid-America

NOW – a new and improved traction gear lubricant for all types of Diesel locomotives

NEW CONOCO COGREASE

developed especially for Diesels with "tight" gear cases

* **GREATER STABILITY—** overcomes oxidation problems in new type gear cases.
* **LESS "THROW-OUT"—** maintains proper viscosity at all operating temperatures.
* **ALL-YEAR GREASE—** eliminates need to carry a Summer and Winter grade.
* **EXCELLENT WEAR CHARACTERISTICS—** acts as excellent gear shield . . . contributes to long gear life.

Conoco Railroad Products

Are you familiar with these other dependable Conoco Products . . . specified by the Nation's leading railroads?

DIESEL LUBE OIL "R"
Super MOTOR OIL
RAIL JOINT LUBRICANT
CAR OIL "GH" (additive type)
Super LUBE—ALL-PURPOSE GREASE
WEED SPRAY OIL

CONOCO

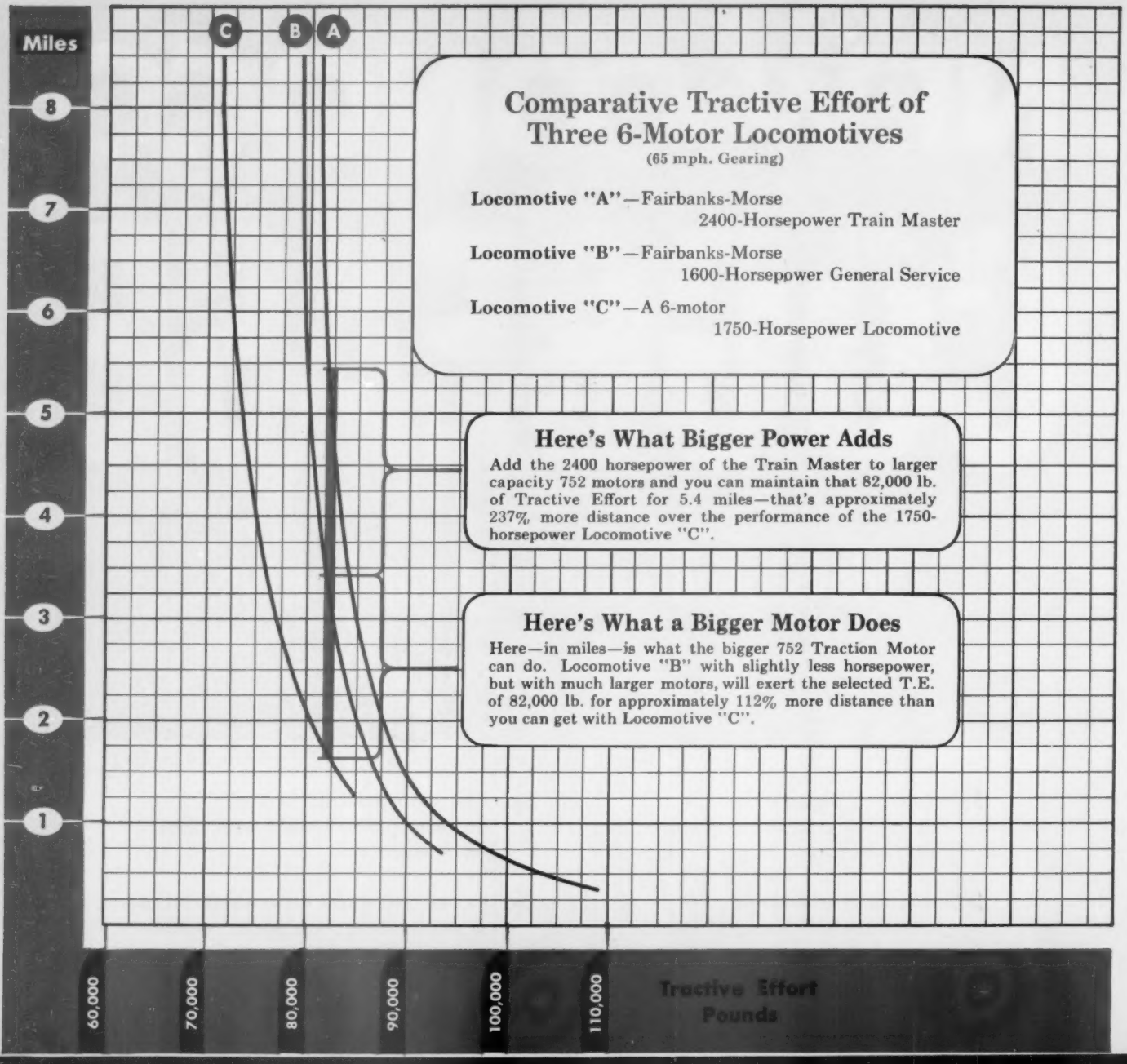
Laboratory analysis and technical assistance available to you. Write for additional information.

CONTINENTAL OIL COMPANY

Railway Sales Division • 400 W. Madison St., Chicago, Illinois • Lincoln 9-2666

© 1955, Continental Oil Company

Which would you choose to



Comparative Tractive Effort of Three 6-Motor Locomotives

(65 mph. Gearing)

Locomotive "A"—Fairbanks-Morse
2400-Horsepower Train Master

Locomotive "B"—Fairbanks-Morse
1600-Horsepower General Service

Locomotive "C"—A 6-motor
1750-Horsepower Locomotive

Here's What Bigger Power Adds

Add the 2400 horsepower of the Train Master to larger capacity 752 motors and you can maintain that 82,000 lb. of Tractive Effort for 5.4 miles—that's approximately 237% more distance over the performance of the 1750-horsepower Locomotive "C".

Here's What a Bigger Motor Does

Here—in miles—is what the bigger 752 Traction Motor can do. Locomotive "B" with slightly less horsepower, but with much larger motors, will exert the selected T.E. of 82,000 lb. for approximately 112% more distance than you can get with Locomotive "C".

BIGGER TRACTION MOTOR CAPACITY

BIGGER HORSEPOWER

MAKE TRAIN MASTER YOUR SOUNDEST MOTIVE POWER BUY

do with your Train Masters?

1 Haul More Tonnage?

According to the chart, if you were using Locomotive "C" on a 5-mile ruling grade, its 1750-horsepower and smaller traction motor capacity would rate a Tractive Effort of about 73,300 lb.

Put your Train Master on that same hill. Locomotive "C" would need help over the grade to meet tonnage ratings set by the Train Master, for the TM's larger horsepower and greater traction motor capacity would rate a T.E. of 82,600 lb. for the distance.

Use your Train Master power this way and you will haul up to 15% more tonnage than with Locomotive "C", at rated traction motor temperatures.

This superiority of the Train Master is analogous to the superiority of diesel-electrics generally over the steam locomotive.

2 Haul Same Tonnage—Faster?

On that same 5-mile hill, you might elect to keep the tonnage ratings set by Locomotive "C". Your 2400-horsepower Train Master would haul the same tonnage over the grade—faster.

The longer the hill, the greater the performance differential in favor of the Train Master.

If this option of operation were your choice, you would be running the bigger capacity 752 motors of the Train Master at much lower temperatures than on Locomotive "C". These lower operating temperatures will result in longer motor life, typical of habits of electrical insulation.

Either Way

. . . Train Master's greater traction motor capacity and greater horsepower give you greater motive power performance than any other 6-motor locomotive. Fairbanks, Morse & Co., 600 South Michigan Avenue., Chicago 5, Ill.

FAIRBANKS-MORSE

a name worth remembering when you want the best

DIESEL LOCOMOTIVES AND ENGINES • RAIL CARS AND RAILROAD EQUIPMENT •
ELECTRICAL MACHINERY • PUMPS • SCALES • WATER SERVICE EQUIPMENT • MAGNETOS

new fast service

across Canada by Canadian National's

SUPER Continental

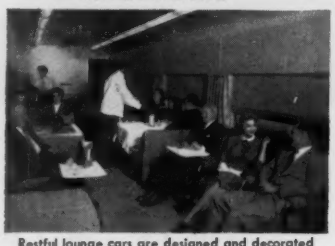
DIESEL POWERED ALL THE WAY

This brand new addition to CNR's fleet of main-line trains cuts more than 14 hours off runs between Montreal-Toronto and Vancouver. Arrival and departure times provide maximum convenience for travellers to and from points across Canada.

With its complete range of attractive sleeping accommodations, picture-window coaches, choice of dining facilities including Coffee Shop service, the CNR SUPER CONTINENTAL offers the most modern refinements of comfort, convenience and restful travel across Canada.

This spacious compartment is one of eight types of sleeping accommodations.

Passengers can enjoy budget-priced meals in the Dinette at all hours.



Restful lounge cars are designed and decorated for congenial travel-living.

fast new schedules

MONTREAL AND TORONTO TO
WINNIPEG • SASKATOON • EDMONTON
JASPER • VANCOUVER

Here are typical examples of time-saving on the Diesel-powered SUPER CONTINENTAL:

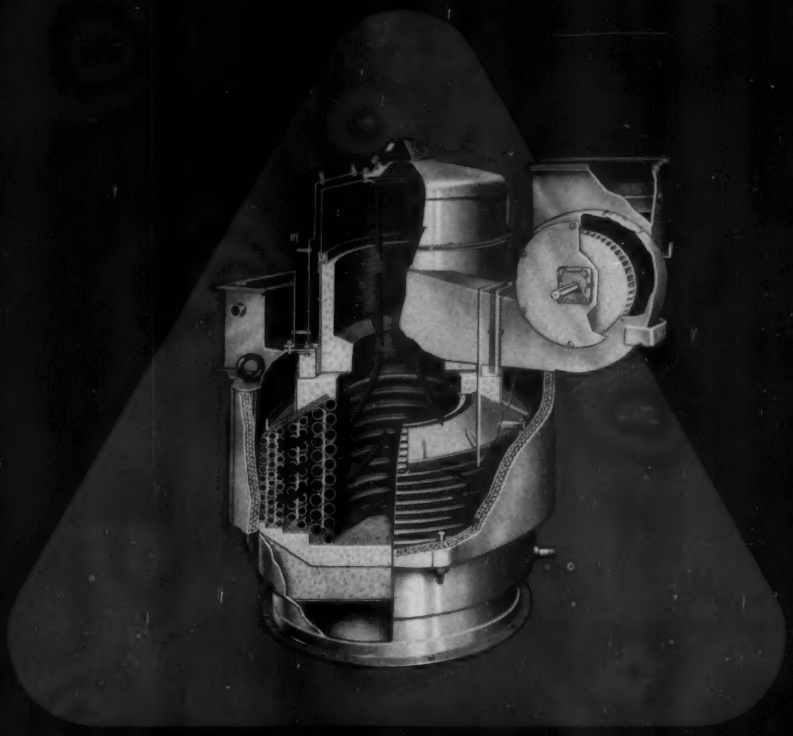
Lv MONTREAL Daily 3:25 p.m.

Elapsed time to:	
Ottawa	2 Hrs. 10 Mins.
Winnipeg	32 " 05 "
Saskatoon . . .	42 " 40 "
Edmonton . . .	50 "
Vancouver . . .	73 " 20 "

Complete information on schedules, equipment from any Canadian National Railways office.

CANADIAN NATIONAL RAILWAYS

SERVING ALL 10 PROVINCES OF CANADA



Here's an old friend in slightly new form—the Vapor Steam Generator of Diesel Streamliner fame, now developed for general service!

For heating or power . . . for any purpose . . . you get time-saving, labor-saving, cost-saving "Vapor" automatic performance—steam in the volume and pressure you want, at the touch-of-a-button. Operating labor is a thing of the past. Maintained by your present experienced Diesel servicing personnel.

Takes no more space than a watchman's cot—needs no separate enclosure, costly foundation, expensive stack—delivers continuous output up to 160 h.p. Modulātic is shipped completely assembled, passes through normal plant-type doorways, installs anywhere, comes to you ready to connect and fire-up.

a steam generator designed for the Diesel age... MODULATIC

compact
reliable
automatic

QUICK FACTS ON THE TOP-FIRED MODULĀTIC

Sizes: 18 to 160 h.p.
Pressures: 5 to 300 p.s.i., (Higher Pressures on Special Order)
Fuel: Oil, gas, or combination.

ASME Code and UL approval. Multiple installations can have a single coordinated control. Over 10,000 in use.

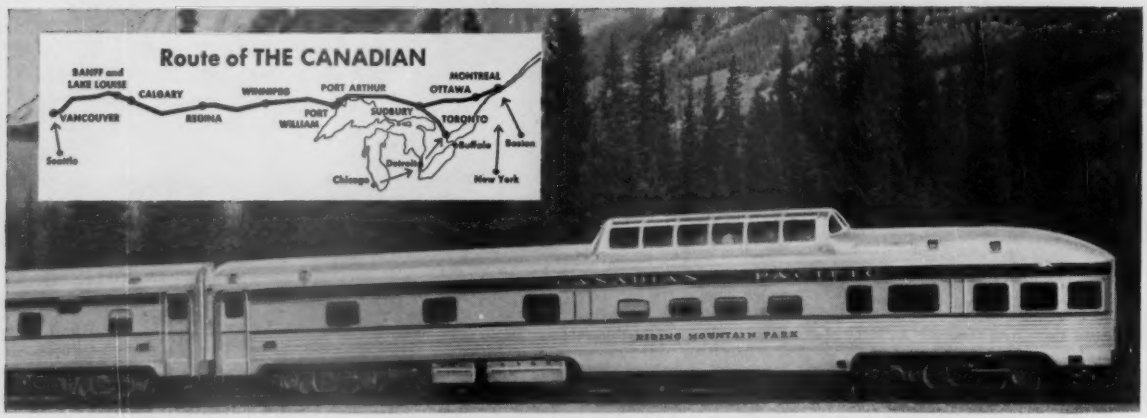
VAPOR
MODULATIC
VERTICAL STEAM GENERATOR

Uses include steam for laundries . . . heating for stations and other buildings . . . power for pile drivers and Diesel shops . . . cleaning steam . . . locker-room hot water . . . steam for pump operation, etc. Savings often run from $1000.00 to $2000.00 per month.

Ask for Modulātic Bulletin 586. This dependable, versatile unit is the world's most compact power package.

VAPOR HEATING CORPORATION
80 E. Jackson Blvd., Chicago 4, Ill.
NEW YORK • ST. PAUL • WASHINGTON
PHILADELPHIA • ATLANTA • SAN FRANCISCO
HOUSTON • RICHMOND • LOS ANGELES • ST. LOUIS
IN CANADA: Vapor Car Heating Co. of Canada, Ltd., 65 Dalhousie St., Montreal 3

Canadian Pacific presents Canada's first and only stainless steel Scenic Dome streamliner—The Canadian



NOW SELL SCENIC DOME travel across Canada! New fast schedule between Montreal and Vancouver, and Toronto and Vancouver, via Banff and Lake Louise in the Canadian Rockies! Make your clients the first to see rugged Canada from new high-up Scenic Domes. Sell reservations now while April, May, June accommodations are still available. No extra fare!

FOR 2,881 MILES, 600 of which are through the majestic Canadian Rockies, Scenic Dome travelers can see magnificent Canadian landscape all around, above, straight ahead.

DELICIOUS MEALS AND SNACKS are served in the Skyline Coffee Shop. For more lavish fare there is a Deluxe Dining Room Car. Both open to coach, tourist and first class passengers.

TRAVELERS ENJOY REFRESHMENTS while seated under an original mural of a National Park. Special decorations throughout give *The Canadian* a fresh, unique Canadian atmosphere.

THRIFTY, DELUXE COACHES feature reclining armchairs with full-length leg and foot rests and adjustable head rests. All coach seats reserved. Porter service! Transcribed music!

Rolling Steel Doors

Manually, Mechanically, or Electrically Operated

Rolling Steel Doors in exterior openings provide greater security than any other type of door. When these doors are closed, their interlocking steel curtains assure maximum protection against both intrusion and fire. In the installation shown below, where five new Mahon Power Operated Rolling Steel Doors provide access to an enclosed loading dock, it is impossible to open any of the doors from the outside. They can be opened only through use of normal operating controls located inside the building. Rolling Steel Doors have many other advantages . . . they are very compact—their vertical roll-up action permits use of floor space to within a few inches of the door curtain on either side. And, there are no overhead tracks or other obstructions to interfere with crane handling adjacent to door openings. A Mahon electrically operated, quick-opening, quick-closing Rolling Steel Door will save valuable space and valuable time in any type of opening. In addition, Mahon Rolling Steel Doors are permanent—their all-metal construction assures a lifetime of trouble-free service. When you select a Rolling Steel Door, check specifications carefully . . . you will find extra-value features in Mahon doors—for instance, the galvanized steel material, from which the interlocking curtain slats are rolled, is Bonderized and dip-coated with synthetic enamel which is baked on at 350° F. prior to roll-forming. You will find other Mahon features in both design and materials that add up to a greater over-all dollar value. See Sweet's Files for complete information, or write for Catalog G-55.

THE R. C. MAHON COMPANY

Detroit 34, Michigan • Chicago 4, Illinois • Representatives in all Principal Cities

Manufacturers of Rolling Steel Doors, Grilles, and Automatic Closing Underwriters' Labeled Rolling Steel Doors and Fire Shutters; Insulated Metal Walls and Wall Panels; Steel Deck for Roofs, Partitions, and Permanent Concrete Floor Forms.

ROLLING STEEL DOORS, SHUTTERS AND GRILLES TO MEET EVERY REQUIREMENT

Five of Seven Mahon Power Operated Rolling Steel Doors installed at Dossin's Food Products Plant, Detroit, Michigan. The Five Doors illustrated are in openings to an enclosed loading dock. All seven Mahon Rolling Steel Doors in this plant replaced exterior wooden doors of various types.

MAHON

For Superior Railroad ...SINCLAIR

Lubrication... sets the pace!

- **SINCLAIR GASCON® GL-HD LUBRICATING OIL**
  Used on over 100 railroads

- **SINCLAIR RUBILENE® OIL**
  For Diesel Locomotive Air Compressors

- **SINCLAIR ROLLER BEARING OIL 62**
  For car and locomotive roller bearings, and traction motor support bearings

- **SINCLAIR 53 CAR OIL**
  Meets and surpasses all AAR requirements

- **SINCLAIR FILTERTAC AIR FILTER OIL**
  For locomotive and passenger car viscous impingement air filters

- **SINCLAIR JET LUBRICANT TM**
  The sturdy, stable, long-lasting Pennsylvania refined traction motor gear lubricant

- **SINCLAIR LITHIUM ROLLER BEARING GREASE**
  For freight and passenger car roller bearings, AAR-approved

- **SINCLAIR AAR BRAKE CYLINDER LUBRICANT**
  A year-'round lubricant for reliable brake action

SINCLAIR REFINING COMPANY
600 Fifth Avenue, New York 20, N. Y.
Railway Sales • New York, Chicago, Houston

BREEZE-SWEPT Florida AND THE SOUTH

IT'S *fun*
TO TRAVEL ON A
COAST LINE TRAIN

EAST COAST CHAMPION
WEST COAST CHAMPION
HAVANA SPECIAL
PALMETTO
EVERGLADES

CHAMPION Vacations

Coast Line's famous summer package tours feature, for example, *a 15-day vacation trip, including round-trip fare,* for as little as:

PER DAY from NEW YORK to—

Miami Beach . . $7.13	St. Petersburg . $7.12	Sarasota $6.45
Ft. Lauderdale . 7.97	Clearwater . . . 7.20	Bradenton . . . 6.35

Other "Champion Vacations" proportionately low

•

Coach Fares Greatly Reduced

•

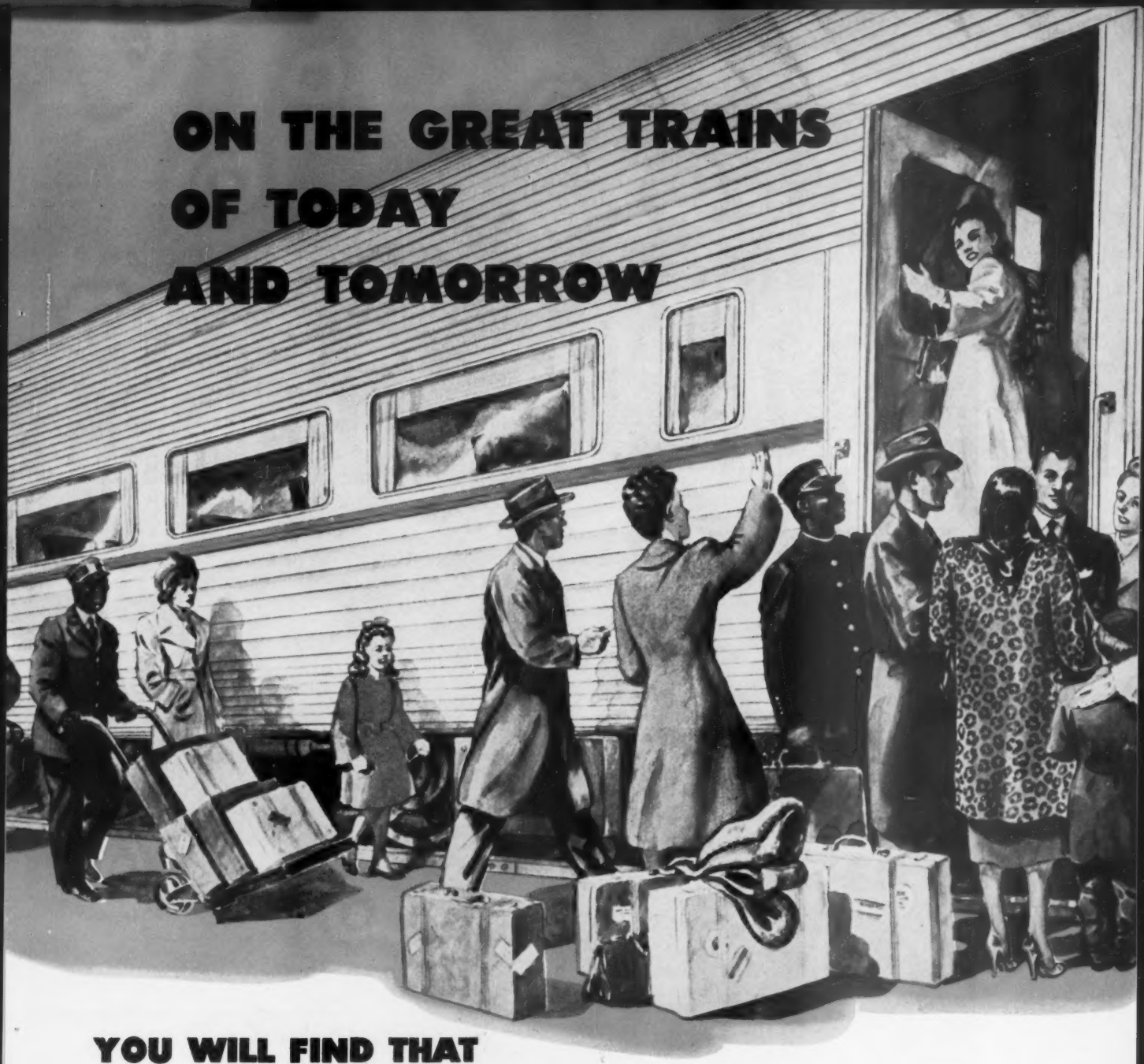
For comfort, travel by train—For convenience, rent a car on arrival

•

OFFICES IN PRINCIPAL CITIES

ATLANTIC
COAST LINE
RAILROAD

"THERE IS NO MORE COMFORTABLE TRAIN RIDE THAN OVER THE RAILS OF ATLANTIC COAST LINE RAILROAD"



YOU WILL FIND THAT

WAUGHMAT *Twin Cushions*

DOUBLE-ACTING

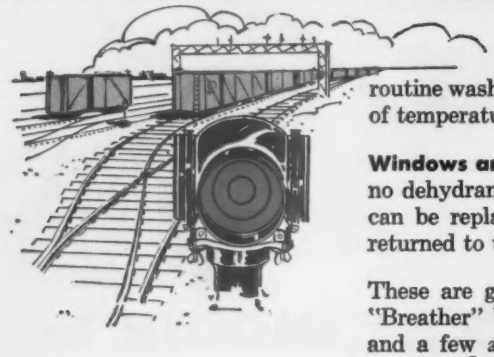
TRADE MARK REGISTERED

CUSHION SHOCKS .... SMOOTH THE RIDE

WAUGH EQUIPMENT COMPANY, New York · Chicago · St. Louis · Canadian Waugh Equipment Company, Montreal

Maintenance, Zero...

with Adlake



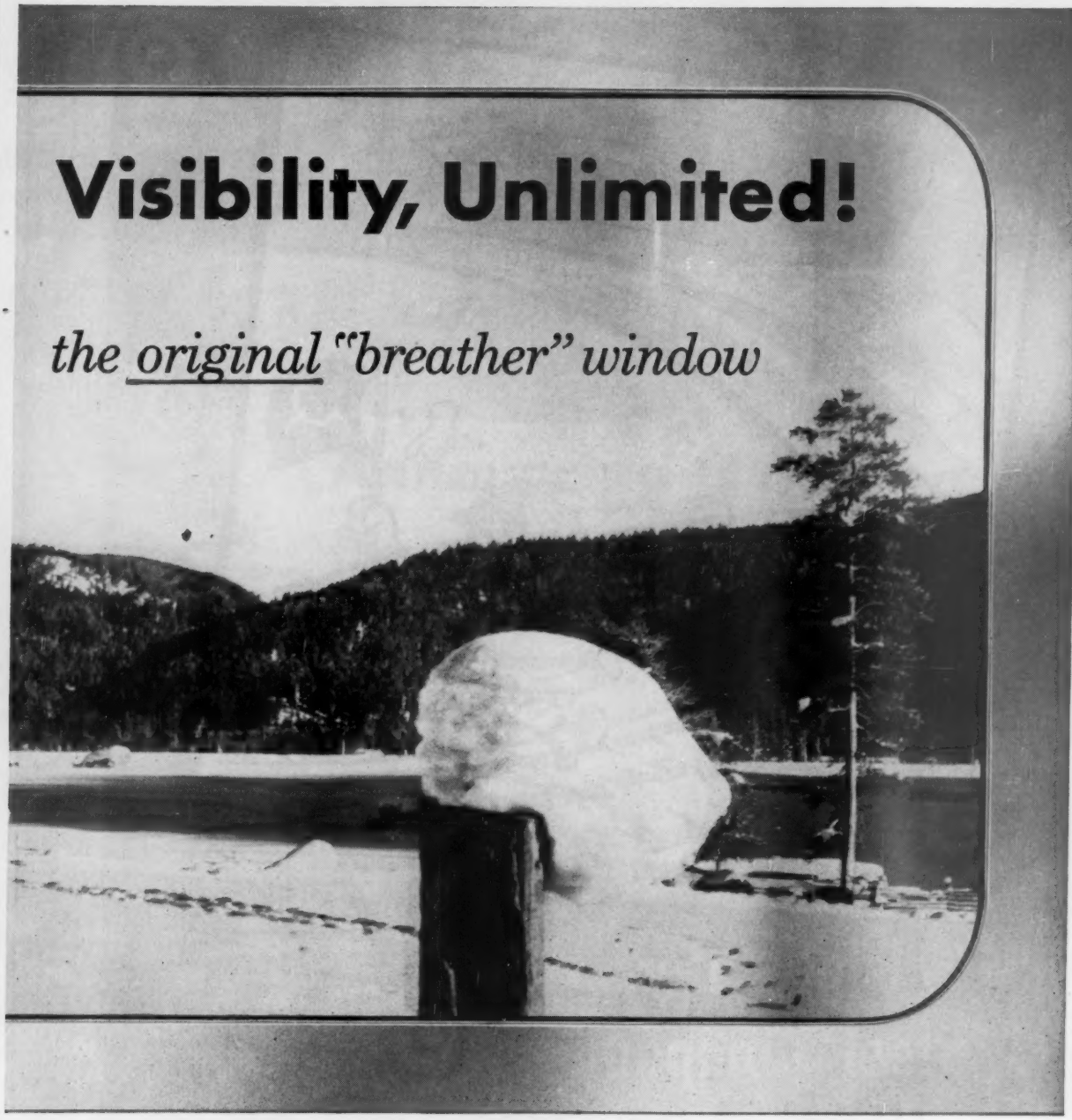
Yes, with absolutely no maintenance whatever except routine washing, ADLAKE "Breather" Windows stay crystal-clear regardless of temperature, humidity or altitude changes!

Windows are kept clear by the exclusive ADLAKE "Breather"—there are no dehydrants to change! And finally, panes which are broken in service can be replaced right on your own property...they do not have to be returned to the factory!

These are good reasons why all major American railroads use ADLAKE "Breather" Windows. We'd like to give you more details on all of them, and a few additional reasons as well. Write to The Adams & Westlake Company, 1150 N. Michigan, Elkhart, Indiana.

Visibility, Unlimited!

the original "breather" window



THE ADLAKE PATENTED "BREATHER" WINDOW is the result of 98 years of designing and manufacturing experience produced by skilled and experienced personnel in a plant covering more than 11 acres. Let *your* passengers see the scenery you advertise...through ADLAKE "Breather" Windows.

THE Adams & Westlake COMPANY

Adlake 98th year of serving the transportation and building industries

Established 1857 • ELKHART, INDIANA • New York • Chicago

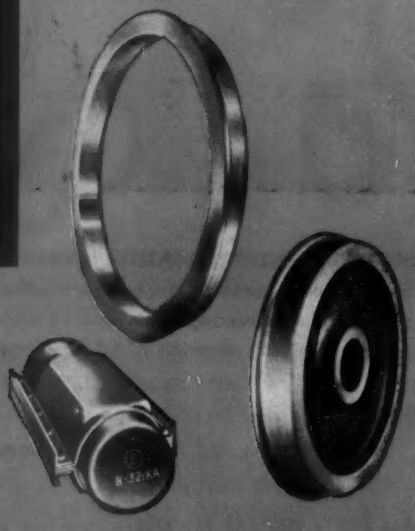
Manufacturers of ADLAKE Specialties and Equipment for the Railway Industry.

A "Secret" Weapon No One Can Steal! By Hungerford

We will be glad to send you enlarged copies of this Hungerford cartoon (without advertising copy) for posting on your office and shop bulletin boards, or a cut for your company magazine, at cost.

E Edgewater Steel Company

PITTSBURGH, PA.



Serving America's Railroads

ROLLED STEEL TIRES
with ROLLED STEEL WHEELS
AND DRAFT GEARS

There is
no substitute for
experience

Announcing a great event for AMERICAN RAILROADING

after 6 years of
practical experience...

INTERIORS... *the Keynote is Adaptability*

The new Talgo car has been dimensioned and standardized to accommodate all interior arrangements: coach, parlor car, dining cars, roomette or bedroom cars. Standardized dimensions makes possible mass production economies, resulting in lower initial cost.

The New ACF Talgo... combines the most advanced engineering principles known to the automotive, aircraft and railroad industries.

In terms of operational adaptability this means:

FOR THE AMERICAN RAILROADS: Lower initial cost and also reduced maintenance costs! Lower fuel consumption! Increased life of component parts and of rights-of-way!

FOR THE AMERICAN TRAVELER: Increased passenger riding comfort! Faster, safe transportation!

3-UNIT CARS... *for Maximum Flexibility*

The three integral units of a new ACF Talgo car function as a single car in terms of reversibility and interchangeability, eliminating time-consuming multiple connections and special handling while still retaining the advantages of articulated trains.

In keeping with the accelerated scheduling now made possible, the New ACF Talgo provides the necessary operational flexibility for fast make-up or consist changes.

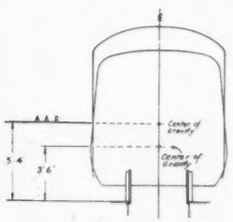
INDU

The details of the New ACF Talgo are based on a careful balance between what is theoretically possible and what six years of actual experience revealed as thoroughly practical:

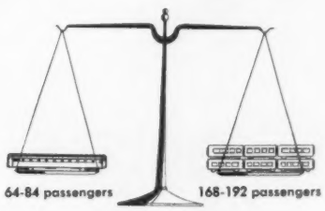
CONSTRUCTION...tube-like stress-skin structure designed to meet applicable American Railroad strength requirements.

WEIGHT...per passenger for a 3-unit car is between 700-800 lbs. or approximately half that of conventional equipment.

CLEARANCE...meets all known clearance requirements throughout the United States.



1½ foot lower center of gravity of ACF Talgo cars assures stable, smooth riding even on curves.



One conventional coach weighs as much as 2 Talgo coaches of 3 units each.

COUPLERS...tightlock type couplers are used for maximum handling ease and flexibility.

BRAKE EQUIPMENT...each 3-unit car has its own air brake system —internally expanding automotive type brakes.

ELECTRICAL EQUIPMENT...for maximum unitized flexibility each car is self-sufficient for lighting, air conditioning, and heating, having own trickle charger and batteries for emergencies. Also ...a simple plug-in provides 440v. 3 phase power from a head end source.

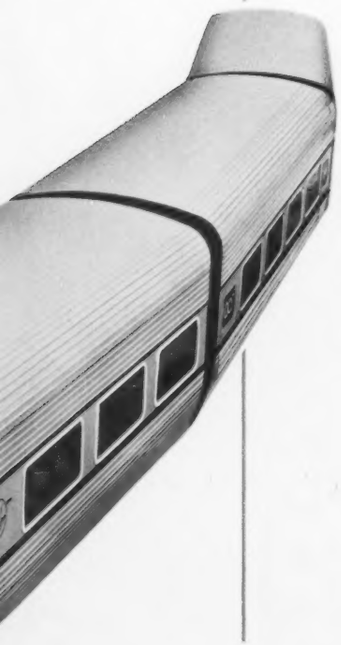
AIR CONDITIONING...two 5 ton package units per 3-unit car so installed to permit maximum accessibility and replacement for maintenance and overhaul.

HEATING...is provided by electric heaters in the air duct system, supplemented by floor heat from electric strip heaters or a closed hot water system.

WATER SUPPLY...each 3-unit car is independent, having water capacity to suit individual requirements.

ENTRANCES...are based upon a 26-28 inch floor height which requires only one step to a low-level platform. For high-station platforms...cars are equipped with the ACF "Hi-Lo" door, allowing passengers to step up to or down from high-level platforms.

SEATING CAPACITY...for a 3-unit coach varies between 84 and 96 passengers, depending upon seating arrangements.



For additional information, arrange for a meeting with an ACF Talgo Representative...by contacting your nearest ACF office...New York, Chicago, St. Louis, Philadelphia, Washington, San Francisco, Cleveland, or communicate directly with the ACF Talgo Project, 30 Church Street, New York 8, N. Y.

acf

INDUSTRIES INCORPORATED

FIRST builder of proven lightweight trains

Ther

no substit

experie

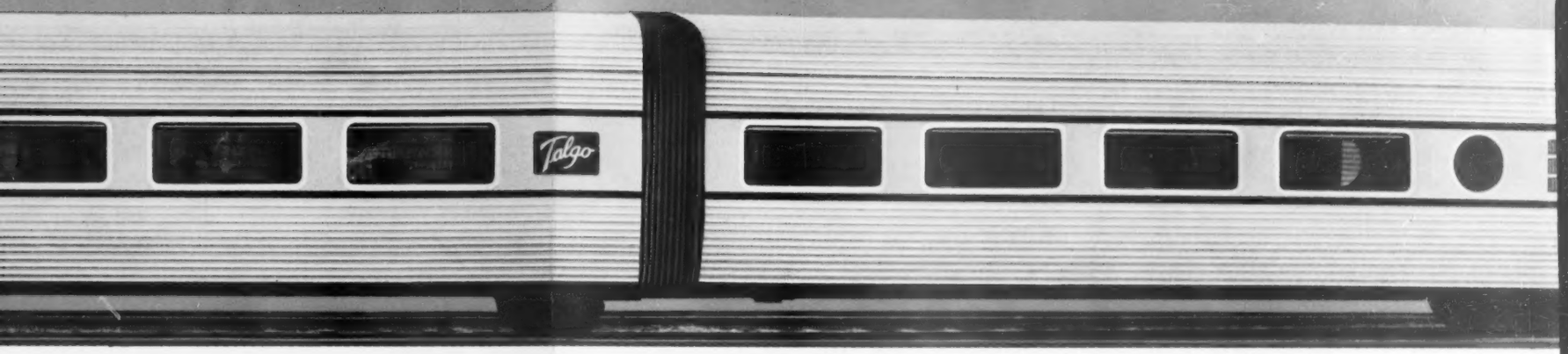
Announ

for AMER

THE NEW acf *Ta*

READY FOR ALL AMERICAN

"……we expect the New ACF Talgo to reflect our unique background in this new field—to be a contribution to the industry, not an experiment."



Talgo

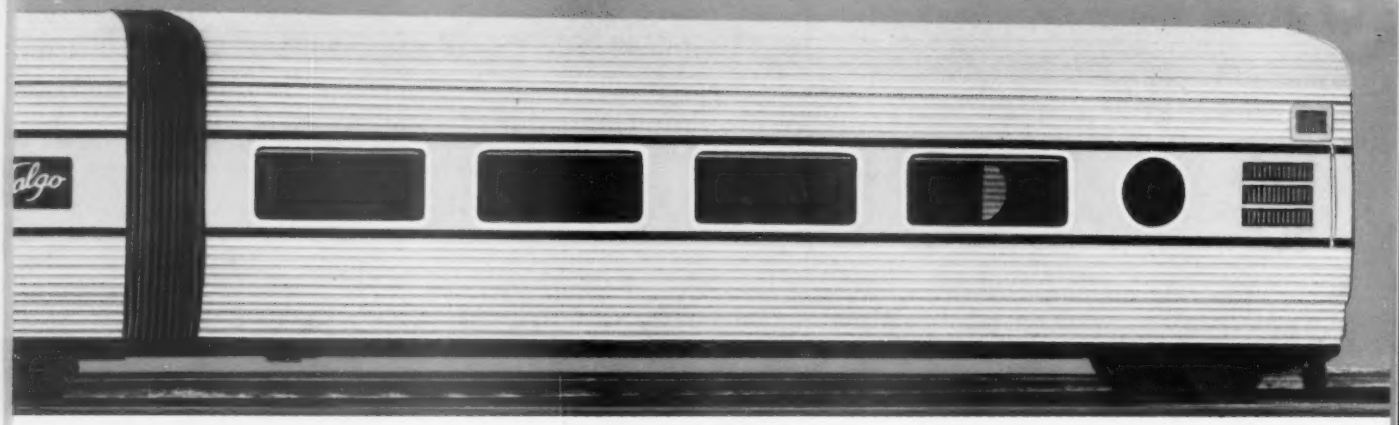
AN RAILROADS!

Proven-in-use Talgo advantages are combined with new design modifications to meet the operational requirements of any American passenger service!

The ACF Talgo, a REVOLUTIONARY concept in railroad transportation has already proven in over 700,000 miles of *actual* revenue service that it reduces operating and maintenance costs…provides faster schedules…increases passenger comfort and safety…boosts passenger traffic… at lower initial cost per passenger than conventional streamliners.

The New ACF Talgo, on the other hand, is an EVOLUTIONARY development based upon 6 years of practical experience with lightweight, low center-of-gravity trains. The New ACF Talgo has been specifically designed to meet the more severe requirements of American Railroads. Its inherent functional flexibility makes the New ACF Talgo completely "American" in design detail.

"..... we expect the New ACF Talgo to reflect our unique background in this new field—to be a contribution to the industry, not an experiment."



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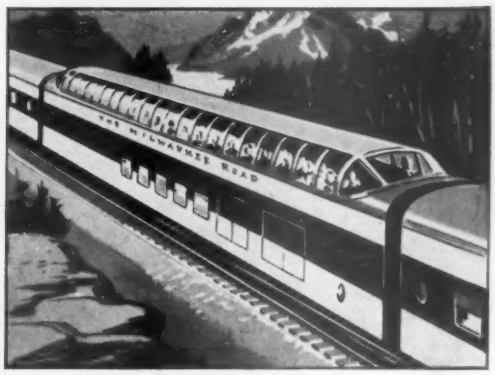
THE ROUTE OF THE SUPER DOME *Hiawathas*

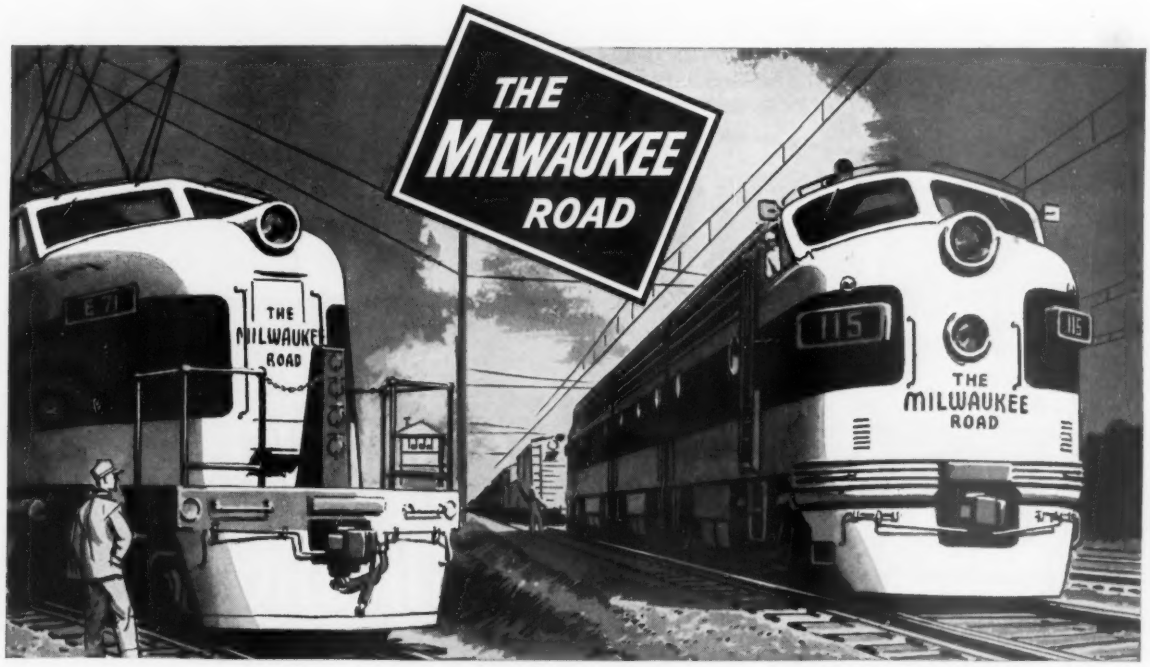


NOW 100% DIESELIZED AND ELECTRIFIED

Early in January The Milwaukee Road became the first Midwest-Northwest railroad to achieve the goal of 100% modern motive power. This applies to all passenger trains, all freight trains and all yard switching.

Diesel locomotives do the job over most of the line. Big electrics are used for 656 miles in the Pacific Northwest where they are especially suited for service in the mountains.

To keep "Out in Front" is the continuing aim of The Milwaukee Road. Through our far-reaching program of modernization and improvement we hope to win an increasing number of passengers for the rails. Harry Sengstacken, Passenger Traffic Manager, Union Station, Chicago.



Westinghouse
Friction Draft Gear
Type NY-11-F
Certified A.A.R.

Friction does it

...and does it well!

Effectively . . . the Westinghouse Friction Draft Gear puts friction to work. For the *smooth start* of a freight train, there is a soft initial action. Then when the BIG impact comes, the Westinghouse Gear is ready instantly with its HIGH shock-absorbing capacity. The initial action blends smoothly into a high ultimate frictional resistance.

In other words, the shock is absorbed by friction before it reaches the car and lading. Thereby, Westinghouse Friction Draft Gear cuts lading damage to a minimum; constantly stands guard against unnecessary rolling stock maintenance costs. Continuing research and development *keep* the Westinghouse Gear practical and economical...as well as effective!

Cardwell Westinghouse Co.
332 S. Michigan Ave., Chicago 4, Illinois
Canadian Cardwell Co. Ltd., Montreal

Specify
CARDWELL
WESTINGHOUSE

Southern Belle®

STREAMLINED HOSPITALITY

between

KANSAS CITY

and

NEW ORLEANS

KANSAS CITY SOUTHERN *Lines*

W. C. CLARK
Passenger Traffic Manager
SHREVEPORT, LOUISIANA

THE ROUTE OF COURTEOUS SERVICE

means exactly what it says

THIS LINE appears as part of the "signature" in Seaboard Railroad's advertising. It's a simple statement and a sincere one—a continuing pledge by the men and women of our railroad to serve travelers and shippers in the friendly, thoughtful manner which keeps old friends and makes many new ones.

Seaboard's Silver Streamliners

SILVER METEOR • SILVER STAR

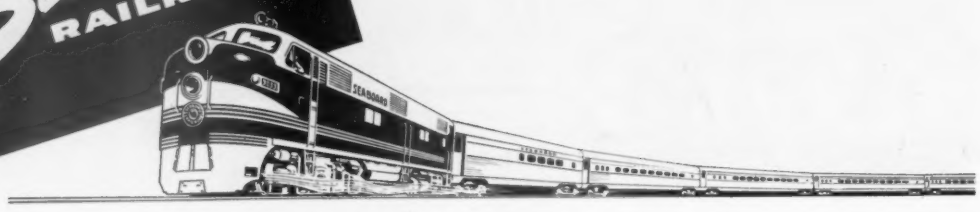
Between New York and Florida

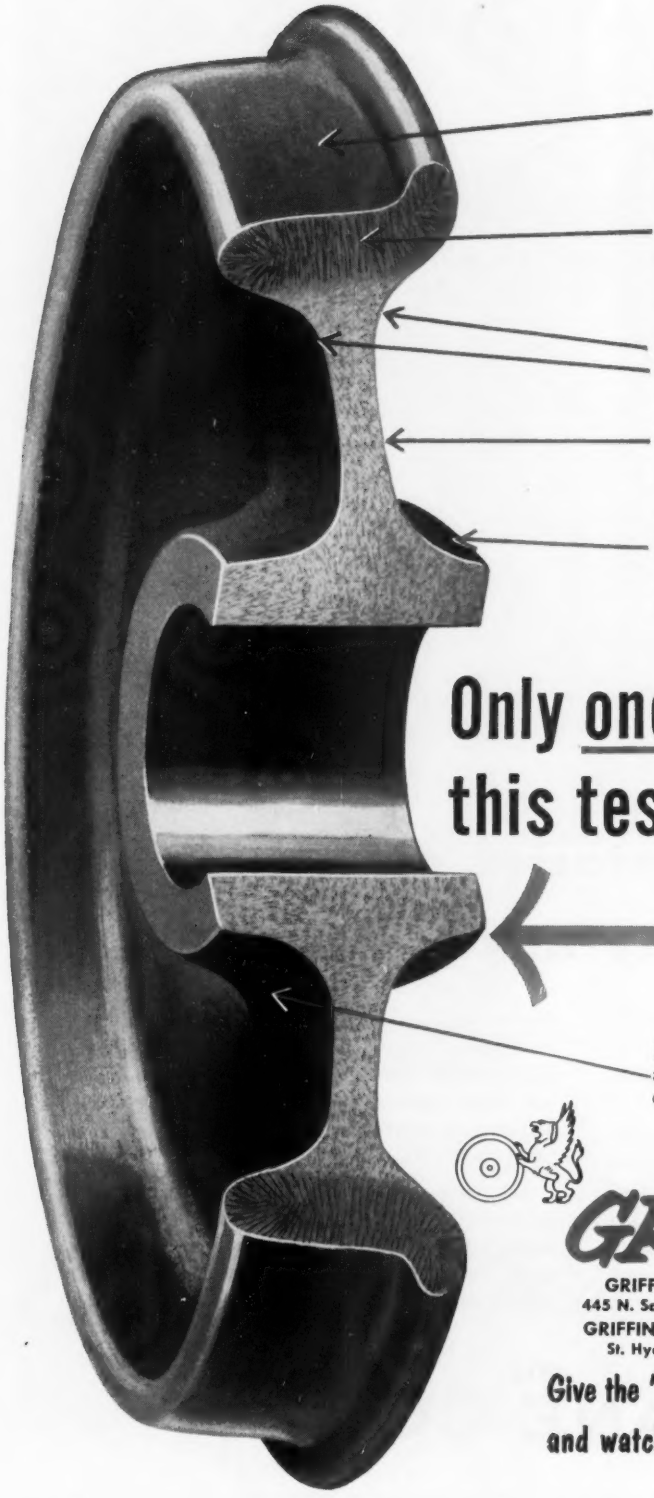
SILVER COMET

Between New York and Atlanta-Birmingham

SEABOARD RAILROAD

THE ROUTE OF COURTEOUS SERVICE





Roundness of EQS wheel is practically perfect—as-cast. No machining necessary . . . the toughest and longest-wearing metal is *on the tread, NOT in the scrap bin.*

Pressure pouring in graphite molds results in superior flange and tread wear. Note the directional solidification in flange and tread, shown before heat treatment: *the grain of the metal in EQS wheels is at right angles to the point of wear.*

Long sweeping fillets under flange and rim of EQS wheels insure greatest possible strength.

The Griffin EQS plate is of *uniform thickness*, dimensionally accurate in any section.

Now made of .75 carbon steel. Exclusive casting process used in producing EQS wheels permits use of recognized steel analysis that will best meet your requirements.

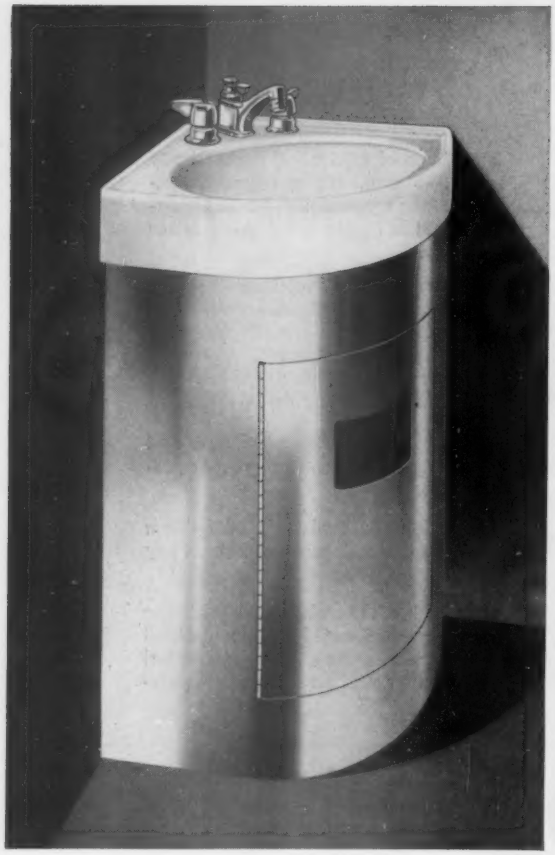
Only one wheel can pass this test with a score of 100

Location of hub and plate is identical in all EQS wheels; dissipation of heat is even, without developing internal stress.

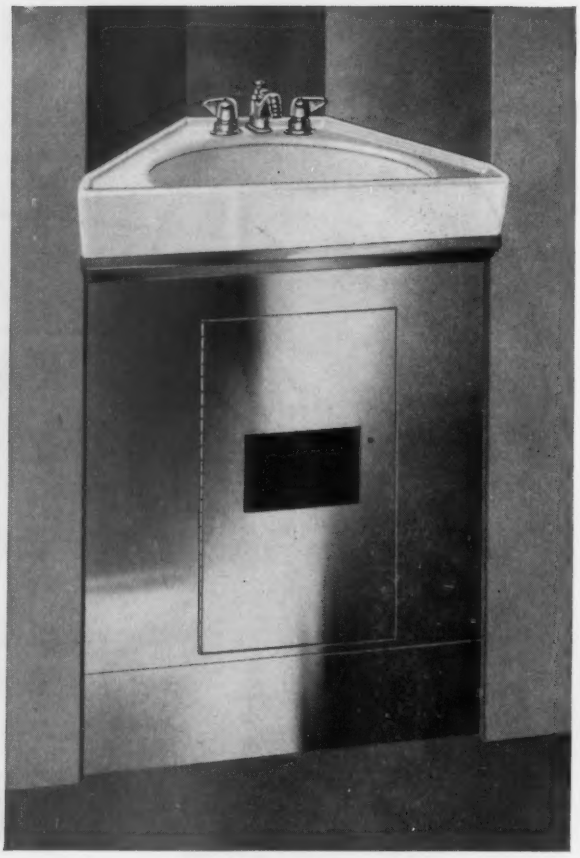
GRIFFIN EQS
ELECTRIC QUALITY STEEL

GRIFFIN WHEEL COMPANY
445 N. Sacramento Blvd., Chicago 12
GRIFFIN STEEL FOUNDRIES LTD.
St. Hyacinthe, Quebec, Canada

Give the "green" to GRIFFIN... and watch your costs go down!



Corner Lavatory



Angle Recess Lavatory

New CRANE lavatories offer builders more flexibility in car designing

Here are two new Crane lavatory designs which can give you greater latitude in laying out plumbing for roomettes and bedrooms—for new sleeping cars—or for modernizing older ones.

Crane Corner Lavatory Designed primarily for roomettes, but can be used elsewhere. Made of the finest Crane quality vitreous china. Chrome-plated combination supply and waste fittings. Integral ice water faucet—for use with circulating ice water system. Valves are self-closing—conserve water. Size, 15″x15″. Cabinet not furnished by Crane.

Crane Angle Recess Lavatory For installation in compactly designed bedrooms. Can be used in other places. Chrome-plated combination supply and waste fittings, and integral ice water faucet. Self-closing valves prevent waste of water. Size, 24″x14″x14″x10″. Cabinet not furnished by Crane.

Ask your Crane Representative for complete information about these lavatories—and about Crane's line of special plumbing, valves and fittings for railroads. Or write Crane Co., General Offices, 836 S. Michigan Ave., Chicago 5, Ill.

CRANE CO.

VALVES • FITTINGS • PIPE
KITCHENS • PLUMBING • HEATING

CRANE'S FIRST CENTURY...1855-1955

riding HIGH, WIDE *and* HANDSOME *to the West!*

● A new and exciting travel thrill awaits you aboard North Western's famous Domeliners to California and the Pacific Northwest.

Thirty-five Astra-Dome coaches, diners and lounges are now a part of the "CITY OF LOS ANGELES" and the "CHALLENGER," daily trains to Los Angeles—and the "CITY OF PORTLAND," daily to the Northwest.

Now the passing scene takes on a new, live look when viewed from a seat in these modern Domeliners. It's a wonderful way to enjoy the beauty of western America.

Ride the Domeliners

CITY OF LOS ANGELES • THE CHALLENGER
CITY OF PORTLAND

Extra Fine Travel at No Extra Fare

CHICAGO AND NORTH WESTERN RAILWAY SYSTEM

The shortest rail route between
New York and Buffalo
is one of the nation's smoothest
when you ride...

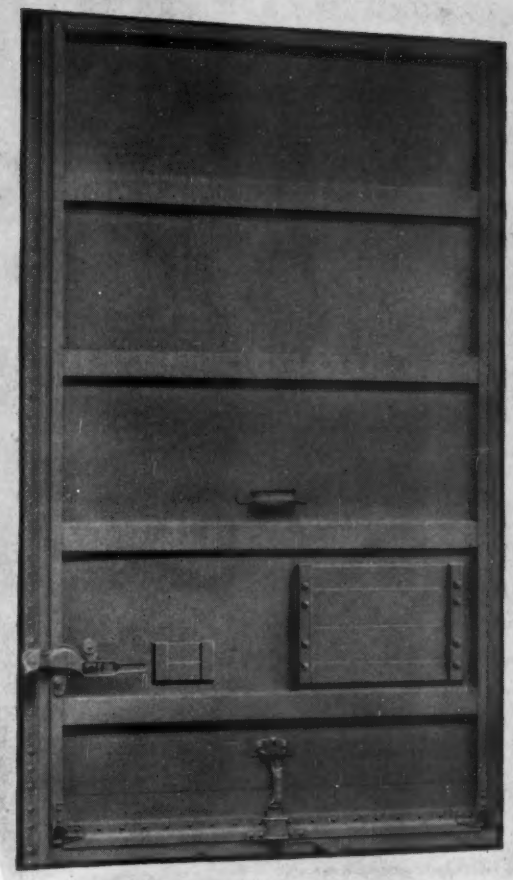
THE PHOEBE SNOW
THE WESTERNER
THE NEW YORKER

Diesel-powered streamliners speed you in luxurious comfort and safety through one of the most scenic spots in all the nation. Connections at Buffalo take you on to Chicago, Cleveland and Detroit without changing trains. Convenient arrival and departure times. Going East, or going West, next time ride the Lackawanna.

For complete schedule information and Bargain Fare Travel rates phone your Lackawanna Agent.

Lackawanna Railroad

THE SHORTEST RAIL ROUTE BETWEEN NEW YORK AND BUFFALO



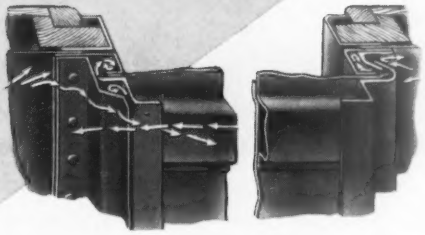
Baffle

damaging weather with Superior car doors!

The money you save on damage claims is only a small part of the *real* benefit you get from *Superior* weatherproofing!

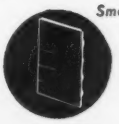
***Most* important is the *good will* of shippers. *Paying* damage claims is no benefit to either party . . . *eliminating* damage claims creates new business for both!**

Free-Rolling on ball bearings



NOTE THIS *BAFFLE* DESIGN which keeps rain, snow, cinders and shipper's ILL-WILL *OUT!*

Tight Closing due to wedge design



Smooth inside surface— no "corrosion pockets" or infestation harbors.

The one man, one hand door.

SUPERIOR

CAR DOOR COMPANY
332 SOUTH MICHIGAN AVE. • CHICAGO 4

S-7

Selected for maximum wear with minimum care

Johns-Manville TERRAFLEX Vinyl Floor Tile

. . . in Budd Company R.D.C. all-stainless steel passenger cars

Heavy traffic in this Budd Company R.D.C. diesel-powered passenger car has little effect on the durable J-M Terraflex floor. A damp-mopping whenever necessary, will restore it to its first-day color beauty.

J-M Terraflex® needs less care and gives more wear than any other type of resilient floor of equal thickness . . . pays for itself through years of low-cost maintenance

AS A RESULT of its tested performance in railroad car installations, Johns-Manville Terraflex Vinyl Floor Tile is standard equipment in the Budd Company's new R.D.C. passenger cars.

J-M Terraflex is a flooring of time-proved superiority. Made of vinyl and asbestos it is exceptionally tough and resistant to traffic . . . defies grease, oil, strong soaps and mild acids.

Terraflex saves time and dollars through low-cost maintenance. Its nonporous surface requires no hard scrubbing . . . damp-mopping keeps it clean and bright . . . frequent waxing is eliminated. Through years of economical service Terraflex pays for itself.

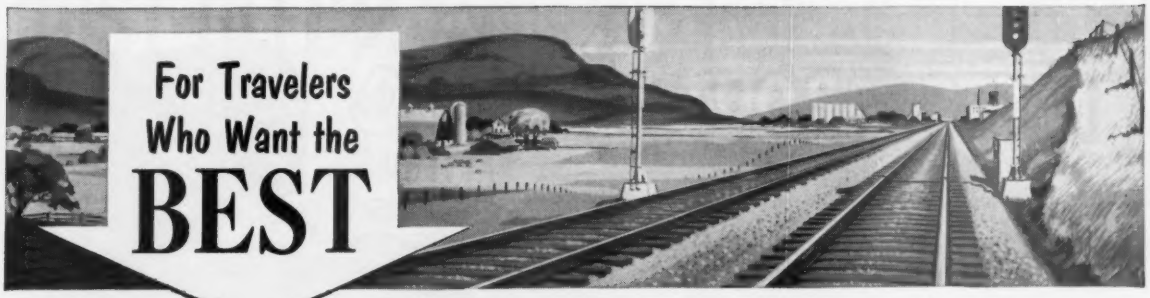
Terraflex is available in a wide range of pleasing colors that will bring beauty as well as utility to floors in cars and buildings.

For the full Terraflex story . . . and its advantages for railroad service, get in touch with your Johns-Manville Representative or write for book FL 73A "Designs for Better Floors." Address Johns-Manville, Box 60, New York 16, N.Y.

JOHNS-MANVILLE JM PRODUCTS

Johns-Manville

97 YEARS OF SERVICE TO TRANSPORTATION



The Railroad: ROCK ISLAND LINES *The Road of Planned Progress*

The Trains: ***THE ROCKETS***—diesel powered, streamlined, lightweight, comfortable, convenient, fast.

The Service:

PEORIA ROCKET
Chicago-Peoria.

DES MOINES ROCKET
Chicago-Des Moines.

CORN BELT ROCKET
Chicago-Omaha.

ROCKY MOUNTAIN ROCKET
Chicago-Denver-Colorado Springs.

TWIN STAR ROCKET
Minneapolis-St. Paul-Kansas City-Ft. Worth-Dallas-Houston.

TEXAS ROCKET
Minneapolis-St. Paul-Kansas City-Ft. Worth.

ZEPHYR ROCKET
Minneapolis-St. Paul-St. Louis.

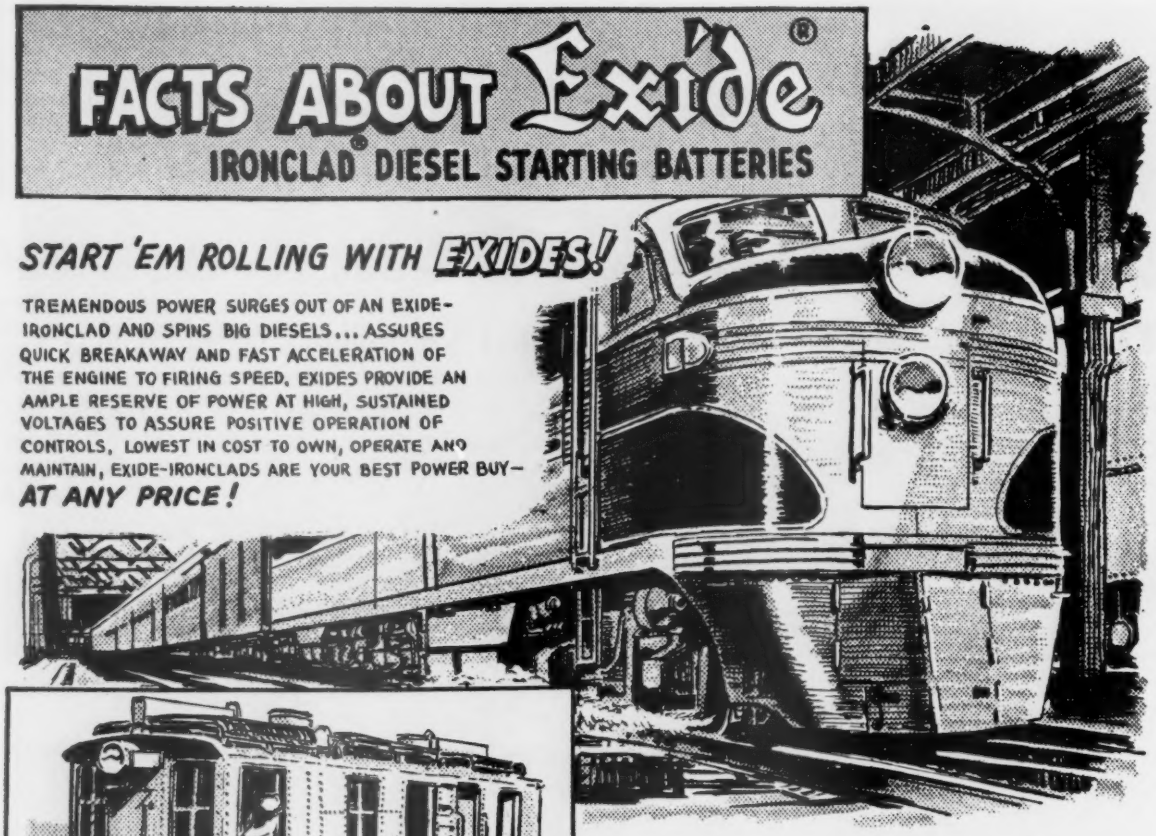
and the GOLDEN STATE
Chicago-Los Angeles.

COMING THIS YEAR . . .
America's first JET ROCKET (Chicago-Peoria)—a new conception in fast, modern, lightweight trains.
Jet Rocket

Rock Island

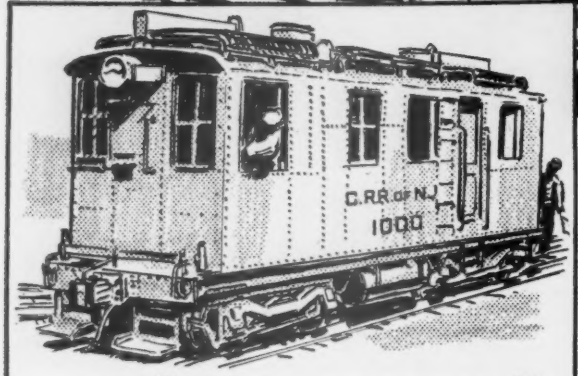
ROCK ISLAND LINES
The Road of Planned Progress

FACTS ABOUT Exide®
IRONCLAD® DIESEL STARTING BATTERIES



START 'EM ROLLING WITH EXIDES!

TREMENDOUS POWER SURGES OUT OF AN EXIDE-IRONCLAD AND SPINS BIG DIESELS... ASSURES QUICK BREAKAWAY AND FAST ACCELERATION OF THE ENGINE TO FIRING SPEED. EXIDES PROVIDE AN AMPLE RESERVE OF POWER AT HIGH, SUSTAINED VOLTAGES TO ASSURE POSITIVE OPERATION OF CONTROLS. LOWEST IN COST TO OWN, OPERATE AND MAINTAIN, EXIDE-IRONCLADS ARE YOUR BEST POWER BUY—
AT ANY PRICE!

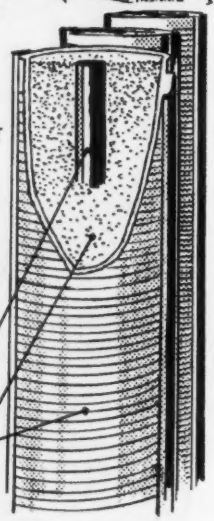


OLD "ONE THOUSAND"
AMERICA'S FIRST DIESEL LOCO HAS ALWAYS USED EXIDES!

A SMOKE ABATEMENT LAW AND SHARP SWITCHES CAUSED JERSEY CENTRAL TO USE THE FIRST COMMERCIALLY SUCCESSFUL DIESEL-ELECTRIC LOCOMOTIVE. THIS SWITCHER, OLD "1000," HAS BEEN OPERATING DAILY SINCE 1925 - AND HAS ALWAYS BEEN EQUIPPED WITH DEPENDABLE ***EXIDE-IRONCLADS!***

TUBES OF POWER WORK FOR YOU INSIDE AN IRONCLAD

SLOTTED TUBES INSIDE AN IRONCLAD KEEP ACTIVE MATERIAL IN FIRM CONTACT WITH CONDUCTING GRIDS OF THE POSITIVE PLATE... THIS GRID PROTECTION LENGHTENS THE LIFE OF THE BATTERY. SLOTTED TUBES EXPOSE MORE ACTIVE MATERIAL TO THE ELECTROLYTE... FOR GREATER POWER. FINE TUBE SLOTS HOLD MATERIAL IN CONTACT WITH GRID LONGER... RESULT, THE IRONCLAD'S ABILITY TO DO YOUR DIESEL STARTING JOB FOR A LONGER PERIOD OF TIME. THAT IS WHY EXIDE-IRONCLADS ARE YOUR BEST RAILWAY BATTERY BUY—
AT ANY PRICE!

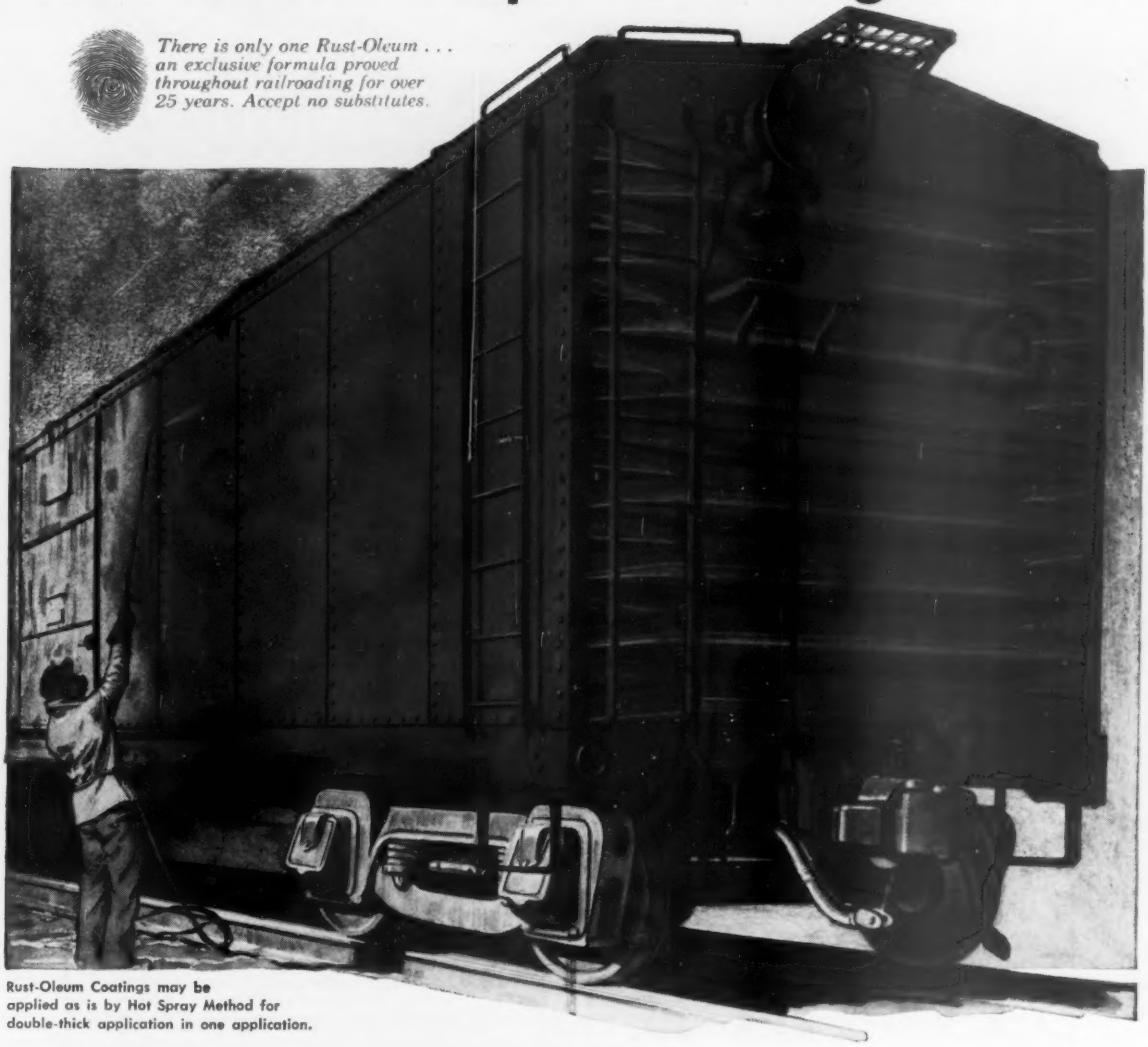


LET EXIDE HELP SOLVE YOUR DIESEL STARTING BATTERY PROBLEM ❶ CALL AN EXIDE SALES ENGINEER FOR FULL DETAILS. ❷ WRITE FOR FORM 4843 - ALL ABOUT MAINTAINING AND INSTALLING DIESEL STARTING BATTERIES.

Exide INDUSTRIAL DIVISION, The Electric Storage Battery Company, Philadelphia 2, Pa.

RUST-OLEUM keeps 'em looking like this!

There is only one Rust-Oleum . . . an exclusive formula proved throughout railroading for over 25 years. Accept no substitutes.



Rust-Oleum Coatings may be applied as is by Hot Spray Method for double-thick application in one application.

RUST-OLEUM®

STOPS RUST!

Protect *new* metal surfaces . . . save even *badly rusted metal!*—and cut maintenance costs, too. Simply scrape and wirebrush to remove rust scale and loose particles . . . then brush Rust-Oleum 769 Damp-Proof Red Primer directly over the *sound rusted surface*. Sandblasting, chemical pre-cleaning and other costly preparations are *not* usually required. You save time, money, and metal on bridges, rolling stock, signal equipment, tanks, buildings, towers, etc. See how Rust-Oleum can save you money . . . why major railroads all over the country rely upon Rust-Oleum. Get the *complete* story from a Rust-Oleum Railroad Rust Preventive Specialist!

RUST-OLEUM CORPORATION
2597 Oakton Street, Evanston, Illinois

Write for your copy of the new Rust-Oleum Catalog, *today!* Available in many colors, aluminum, and white.

Route 'em Katy Southwest

ON THE FAMOUS STREAMLINED

Texas Special

Luxury sleeping car and coach accommodations, nationally famous diner meals please every taste, every budget. Friendly, attentive service in an atmosphere of restful comfort. Through sleeping cars to and from New York, Washington and the Metropolitan East, via the St. Louis gateway.

DAILY BETWEEN ST. LOUIS AND SAN ANTONIO

SOUTHBOUND			NORTHBOUND
		FRISCO R. R.	
Lv.	5:30 pm	St. Louis	Ar. 8:10 am
Lv.	5:40 pm	Tower Grove	Ar. 7:50 am
Lv. (48)	5:51 pm	(46) Webster Groves (46)	Ar. (89) 7:37 am
Lv.	8:01 pm	Newburg	Ar. 5:28 am
Lv.	10:40 pm	Springfield	Ar. 2:50 am
		M-K-T R. R.	
Ar.	2:05 am	Muskogee	Lv. 11:30 pm
Ar.	3:24 am	McAlester	Lv. 10:10 pm
Ar.	5:05 am	Denison	Lv. 8:35 pm
Ar.	6:19 am	Greenville	Lv. 7:16 pm
Ar.	7:18 am	(46) Highland Park* (46)	Lv. 6:18 pm
Ar.	7:30 am	Dallas	Lv. 6:10 pm
Lv.	7:45 am	Union Station	Ar. 5:55 pm
Ar.	7:35 am	Fort Worth	Lv. 5:10 pm
Ar.	a10:05 am	Wichita Falls	Lv. b4:10 pm
Ar.	9:40 am	Waco	Lv. 4:00 pm
Ar.	11:59 am	Austin	Lv. 1:42 pm
Ar.	1:55 pm	San Antonio	Lv. 12:01 pm

a Change at Denison to Train 31.
b Train 32 from Wichita Falls arrives Denison 7:50 pm connecting with Train 2.
(46) No baggage checked for this train to and from points designated.
(48) Stops on signal to pick up revenue passengers for Oklahoma and Texas.
(89) Stops to let off revenue passengers from Texas and Oklahoma.

ON THE DE LUXE

Bluebonnet

Luxurious bedroom accommodations between Kansas City and Fort Worth, roomettes and bedrooms between Kansas City and Dallas, deluxe lounge car, traditionally superb Bluebonnet diner meals. Dallas and Fort Worth passengers particularly appreciate the "just right" overnight Bluebonnet schedule. You retire at your usual bedtime, arrive refreshed and rested.

SHORT LINE BETWEEN KANSAS CITY AND THE PRINCIPAL CITIES OF TEXAS

SOUTHBOUND			NORTHBOUND
Lv.	9:40 pm	Kansas City	Ar. 7:45 am
Ar.	5:59 am	Denison	Lv. 11:35 pm
Ar.	8:17 am	(46) Highland Park* (46)	Lv. 9:04 pm
Ar.	8:30 am	Dallas, Union Station	Lv. 8:55 pm
Ar.	8:30 am	Fort Worth	Lv. 8:45 pm
Ar.	a10:05 am	Wichita Falls	Lv. b4:10 pm
Ar.	11:20 am	Waco	Lv. 5:50 pm
Ar.	2:18 pm	Austin	Lv. 3:05 pm
Ar.	4:45 pm	San Antonio	Lv. 12:35 pm

a Change at Denison to Train 31.
b Train 32 from Wichita Falls arrives Denison 7:50 pm connecting with Train 8.
(46) No baggage checked for this train to and from points designated.

M-K-T
THE KATY RAILROAD
NATURAL ROUTE SOUTHWEST

22-55

* Exclusive on the Katy... Convenient to Residential Section—Adjacent to Southern Methodist University • Avoid downtown traffic • Home sooner.

THE ONLY SYSTEM THAT CLEANS THEM ALL

There has long been a need in the railroad industry for an effective method of cleaning the exterior surfaces of diesel and steam locomotives, passenger coaches, and other rolling stock, regardless of contour—and yet, one which would do the job at minimum expense of labor, time, and materials. The Dearborn Pressure Cleaning System is the carefully planned answer to that demand.

It is a combined equipment-material system which incorporates a series of spray standards with water under pressure to clean all surfaces of the unit from trucks to roof. After preliminary wetting of the surface, a Dearborn acid detergent is applied by spray. This is followed shortly by a similar application of a Dearborn alkaline detergent. Next, a spray of water under extremely high pressure rinses away the dirt and soil film previously loosened by the detergents. This spray method of cleaning reaches all the "hard-to-get-at" nooks and crannies on switchers, tank cars, cabooses, and other units of irregular contour—and cleans them thoroughly.

In addition, Dearborn has recently perfected a process for spray-cleaning coaches that *eliminates streaking on exterior surfaces and windows.*

Because of its performance efficiency and its lower cleaning cost per unit, the Dearborn Pressure Cleaning System is fast becoming standard with America's leading railroads. Write for information.

Dearborn **PRESSURE CLEANING SYSTEMS**

DEARBORN CHEMICAL COMPANY, Merchandise Mart Plaza, Chicago 54, Ill.

UNION PACIFIC presents . . . the "Ultra" in luxurious Domeliner equipment between Chicago and PACIFIC COAST

Astra Dome Observation Lounge Cars on the Domeliners
"CITY OF LOS ANGELES"
"The CHALLENGER" and
"CITY OF PORTLAND"

Astra Dome Coaches on the Domeliners
"CITY OF PORTLAND" and
"The CHALLENGER"

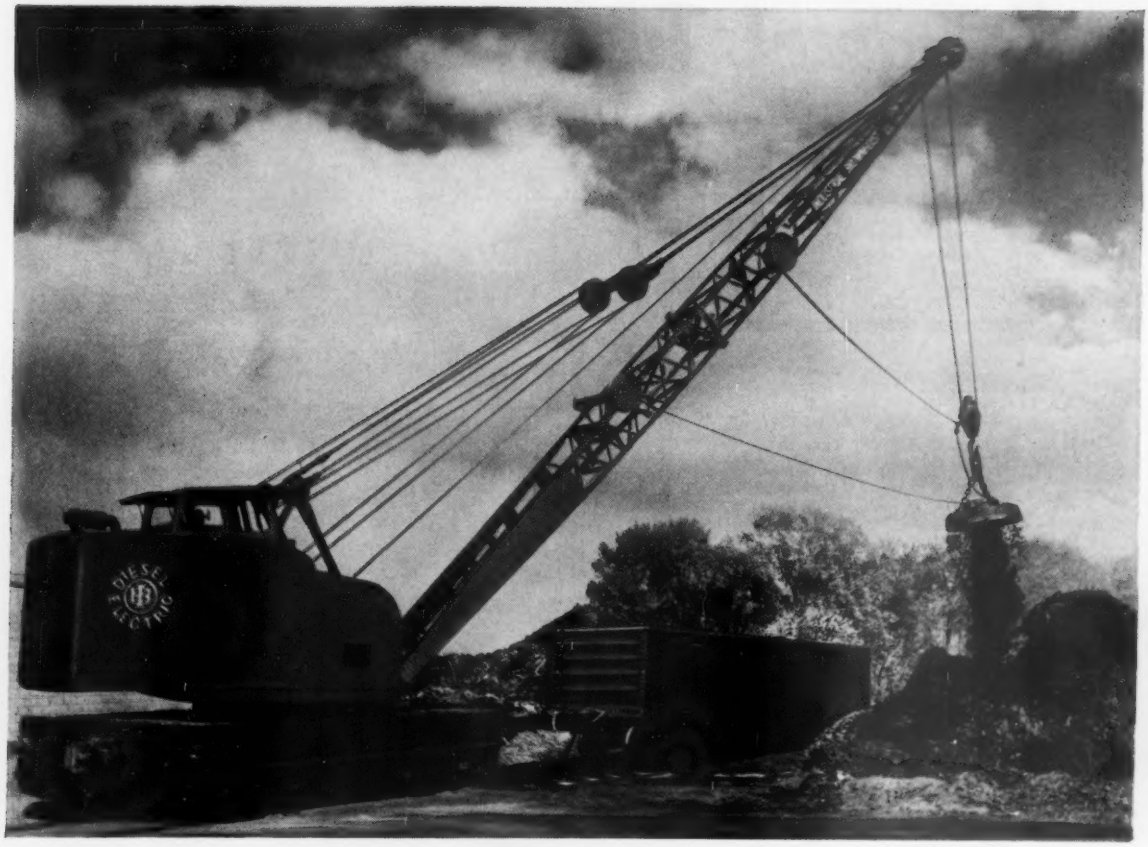
Astra Dome Diners on the Domeliners
"CITY OF LOS ANGELES"
"CITY OF PORTLAND"

UNION PACIFIC RAILROAD

* * * *

Beautiful, distinctive interior furnishings and decorations. Union Pacific innovations such as double capacity air conditioning and seats set at an angle to provide occupants with an unobstructed view. Truly, the finest in Dome equipment.

UNION PACIFIC RAILROAD



With magnet hook or bucket... BROWNHOIST speeds the job

Brownhoist Cranes are helping maintain high production schedules in mines, steel mills, factories, and scrap yards . . . in fact, wherever there are railroads throughout the world. Brownhoist Diesel-Electric Locomotive-Cranes, for all their husky size, handle easily. Their patented Monitor Type Cab and Clear-Vision Boom give a 360° view. Operating controls are within easy reach. Electric travel permits operation as a switch engine as well as a crane. Constructed to last for many years with little maintenance. Brownhoist Diesel-Electric Cranes are available in capacities from 25 to 100 tons. For complete information, consult your nearest Brownhoist representative or write us today.

181

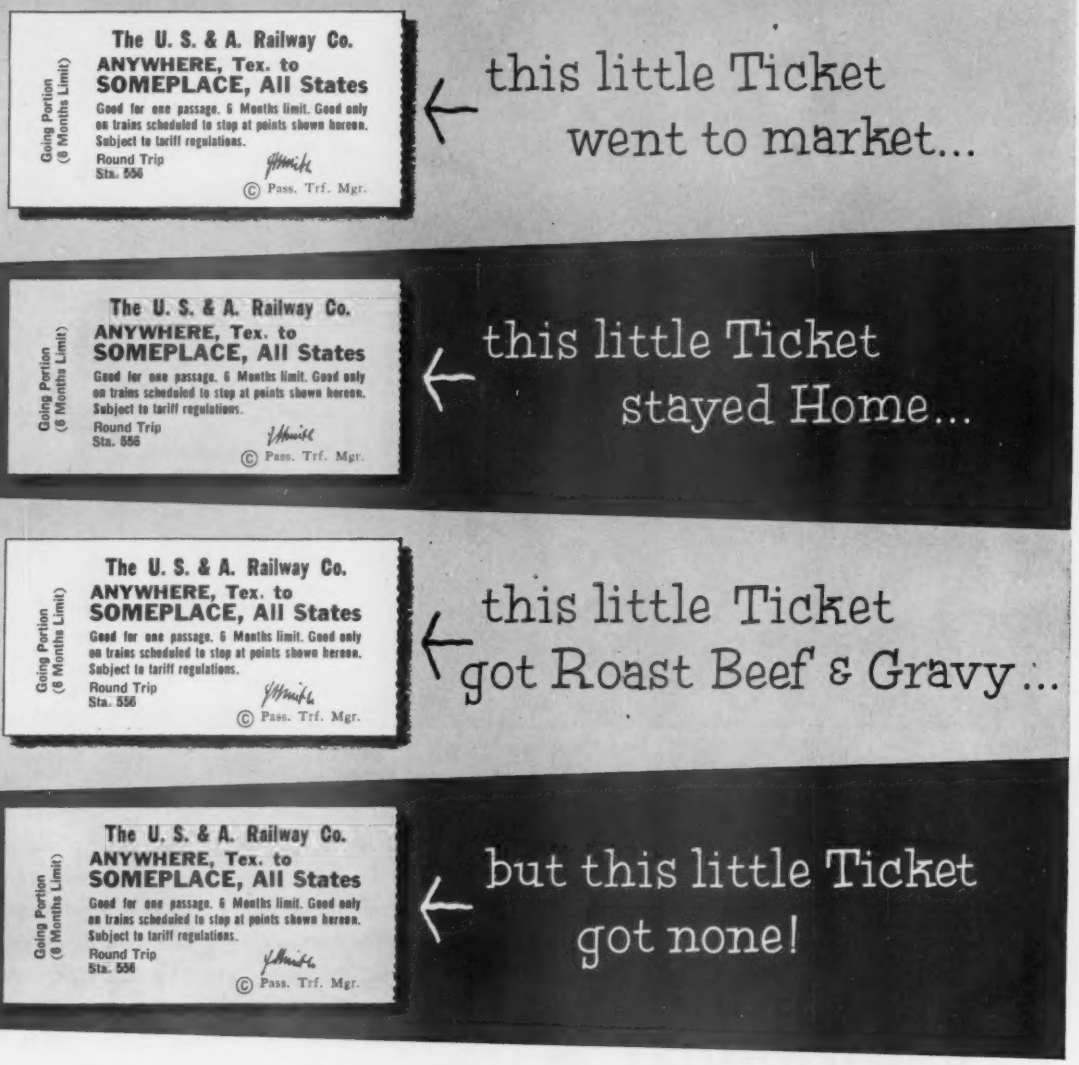
BROWNHOIST

BROWNHOIST MATERIALS HANDLING EQUIPMENT GIVES A LIFT TO AMERICAN INDUSTRY

SUBSIDIARY OF Penn-Texas

INDUSTRIAL BROWNHOIST CORPORATION
BAY CITY, MICHIGAN DISTRICT OFFICES: New York, Washington, Pittsburgh, Cleveland, Chicago, Denver, San Francisco, Montreal • AGENCIES: Detroit, Birmingham, Houston

A Tale of Two Tickets...


The U. S. & A. Railway Co.
ANYWHERE, Tex. to
SOMEPLACE, All States
Going Portion (6 Months Limit)
Good for one passage. 6 Months limit. Good only on trains scheduled to stop at points shown hereon. Subject to tariff regulations.
Round Trip
Sta. 556
© Pass. Trf. Mgr.
this little Ticket went to market...
this little Ticket stayed Home...
this little Ticket got Roast Beef & Gravy...
but this little Ticket got none!

The Customer is **KING** . . .

Here's a story about two little tickets. They look alike. They even may have the same name. But there's a vast difference between them.

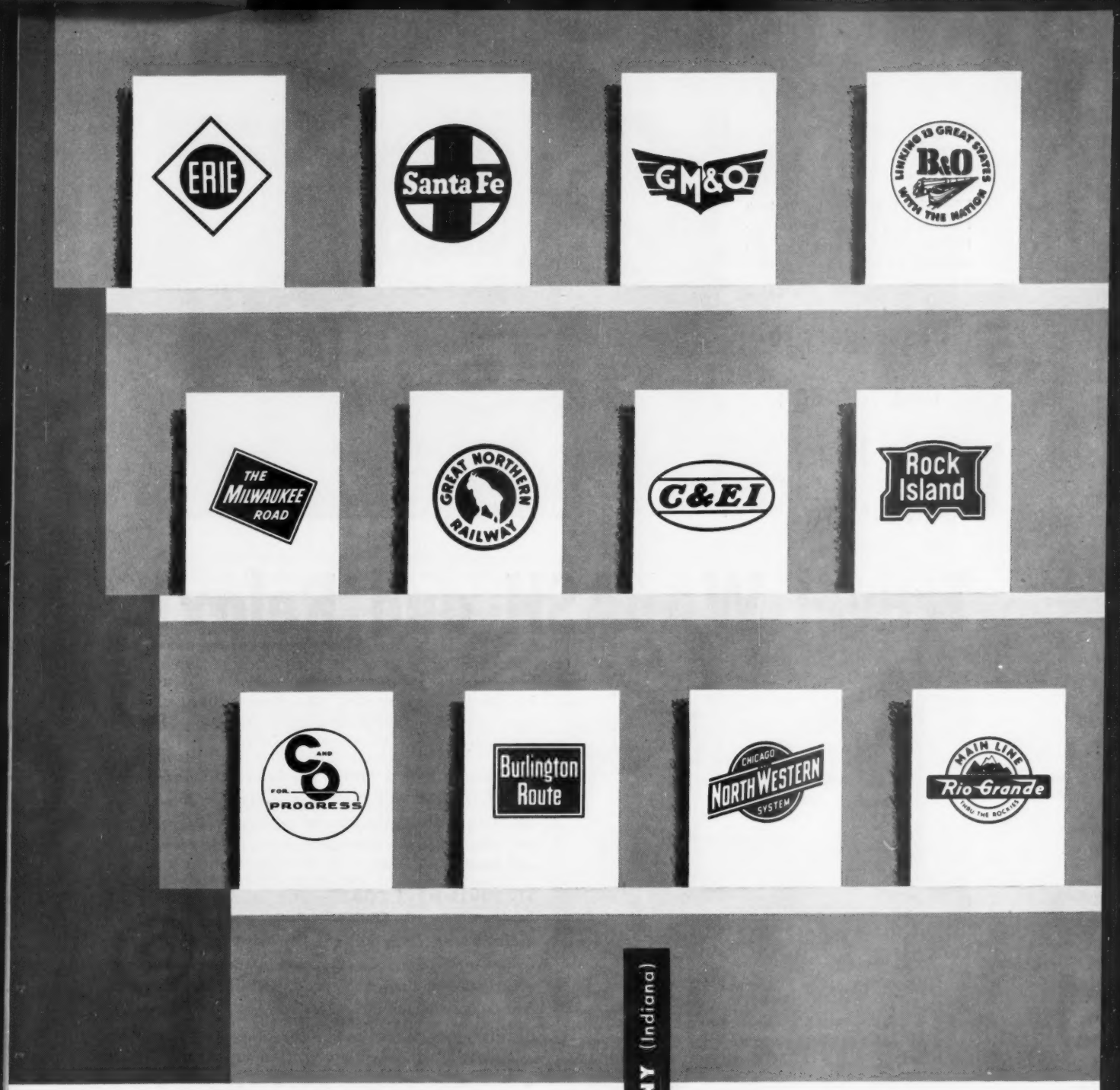
The first one "went to market," because it was backed up with the kind of "roast beef and *gravy*" service that attracts passengers to the railroad.

The second little ticket stayed home, simply because it didn't attract the favorable attention of a passenger.

So, the moral of this little tale of two tickets is this:

The progress of railroad passenger service is determined by its quality and character. If the passengers know our tickets will provide them with comfortable and courteous services, then they will use our tickets to go to the market places.

GO T&P **TEXAS AND PACIFIC RAILWAY**



on time tables...

Depend on good lubrication. And with the expanded use of low cost fuels, good lubrication is more important than ever.

STANDARD OIL COMPANY (Indiana)

STANDARD

LUBRICATING OILS

THESE ARE JUST 12 OF 140 RAILROADS SERVED BY STANDARD OIL COMPANY

TRAVELERS KNOW the Wabash Railroad for its modern service between major Midwestern cities, with service to the West Coast as well.

Passengers to and through the Heart of America

Travel WABASH and Relax!

ONLY DOME TRAIN BETWEEN CHICAGO AND ST. LOUIS—Queen of the Wabash fleet is the Domeliner *Blue Bird*—one of the most beautiful trains on the rails today. Four domes, Pullman observation Parlor lounge, Coffee Shop Club, diner and Cocktail lounge, "Sleepy Hollow" seats. A popular no-extra-fare train. Trains from the Southwest make assured connections with the *Blue Bird* at St. Louis.

CHICAGO-ST. LOUIS—3 trains, led by the gleaming Domeliner *Blue Bird.* The *Banner Blue* and *Midnight* have also earned a fine reputation with travelers.

ST. LOUIS-KANSAS CITY—The luxurious Domeliner *City of Kansas City* features an exciting dome coach. In addition, the Streamliner *City of St. Louis* and the *Midnight Limited* offer comfort, speed and courteous service.

ST. LOUIS-WEST COAST—Streamliner *City of St. Louis* leaves St. Louis every afternoon, making a direct connection with the *Wabash Cannon Ball* from Detroit. Service to Kansas City, Denver, Los Angeles, San Francisco, Portland, and Seattle. Through Pullmans and luxury coaches.

DETROIT-ST. LOUIS—By day, the modern *Wabash Cannon Ball* offers the fastest, most direct rail route to St. Louis. Convenient connections are made at St. Louis with trains to Texas, Oklahoma, Iowa, and Arkansas. For overnight travel from Detroit, there's the popular *Detroit Limited* and *St. Louis Limited,* with service to and from Toledo as well.

ST. LOUIS-OMAHA—Convenient overnight service with Pullman accommodations is provided between these cities.

"ROUTE OF THE *Domeliners*"

J. A. BARRETT, Passenger Traffic Manager
St. Louis 1, Missouri

WABASH RAILROAD

A MOTOROLA FIRST

THAT KEEPS MOTOROLA

FIRST IN PERFORMANCE

If you look "under the hood" of your Motorola receiver you'll find a sealed box containing the *Permakay filter*. It operates constantly and permanently to keep your set locked on your transmitter's frequency. It excludes all adjacent channel signals. Sealed and guaranteed for the life of your set, it eliminates at least 15 nuisance tuning adjustments required in servicing conventional 2-way radio receivers.

Are SPLIT CHANNELS coming?

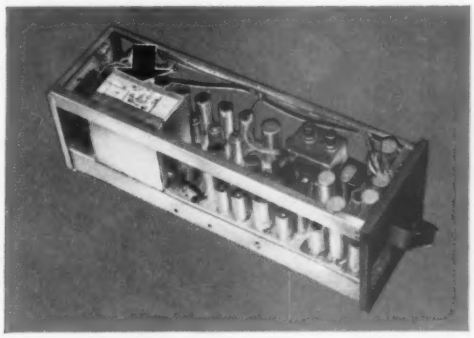
The answer isn't known yet, but *this* is IMPORTANT: Easy adaption to split channel operation has been built into *every* Motorola unit since the inception of the Motorola research line with the Permakay filter. So if you now own Motorola equipment you will have no conversion worries. If you're thinking about buying new radio equipment be sure to buy Motorola, the set that always keeps your future in mind. No wonder the preponderant choice in railroad radio is Motorola.

For the radio engineer who knows his radio values, **here are 8 Motorola Firsts that add up to superior performance.**

- **The Permakay Filter**
- **Statomic Oscillator**
- **Differential Squelch**
- **Capacitance Discriminator**
- **Instantaneous Deviation Control**
- **Thermally Balanced Crystal Oven**
- **Vibrator-Dynamotor 12 V.D.C. power supply**
- **Built-in Dual Vibrator 64 V.D.C. direct power supply**

RECEIVERS LOCKED-ON-CHANNEL PERMANENTLY

The PERMAKAY Filter can *not* be affected by water, dirt, heat, cold or mechanical shock.

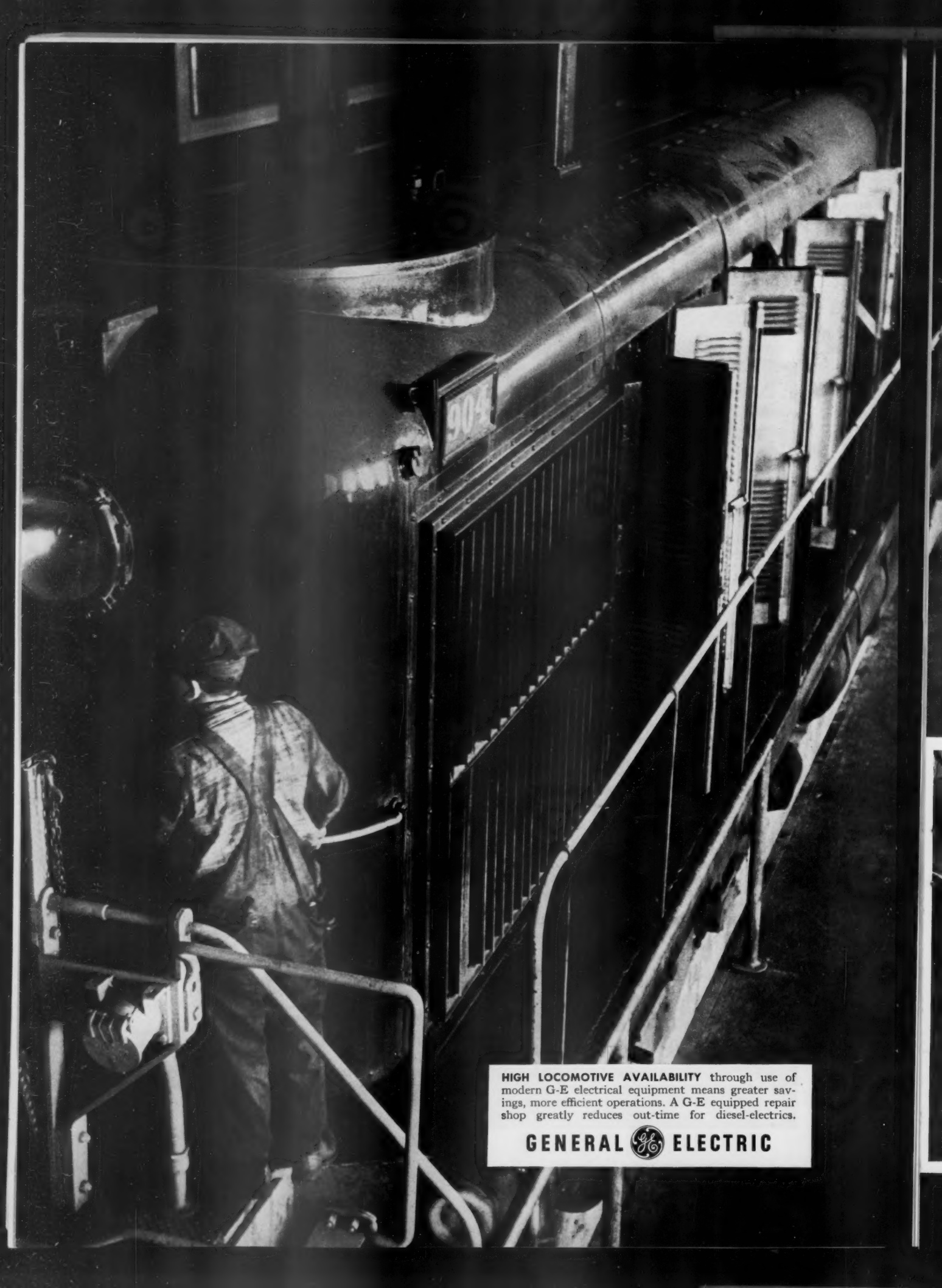


By changing the filter you can essentially be ready for split channel operation at negligible cost.

Motorola
2-WAY RAILROAD RADIO

Motorola Communications & Electronics, Inc.
A SUBSIDIARY OF MOTOROLA, INC.
4501 AUGUSTA BOULEVARD, CHICAGO 51, ILLINOIS
ROGERS MAJESTIC ELECTRONICS LTD., TORONTO, CANADA

Motorola consistently supplies more mobile radio than all others combined— proof of acceptance, experience and quality.
The only COMPLETE radio communications service — specialized engineering . . . product . . . customer service . . . parts . . . installation . . . maintenance . . . finance.
"The best costs you less — specify Motorola".



HIGH LOCOMOTIVE AVAILABILITY through use of modern G-E electrical equipment means greater savings, more efficient operations. A G-E equipped repair shop greatly reduces out-time for diesel-electrics.

GENERAL ELECTRIC

G-E Electrical Equipment Helps Diesel Shops Cut Maintenance Costs up to 50%

With most railroads nearing complete dieselization of motive power, repair shops must streamline to meet today's changing auxiliary service requirements. Modern G-E electrical equipment, tailored to your shop, pays off in faster, more efficient, safer operations.

Designed to present-day industrial standards, General Electric's full line of equipment for diesel repair shops ranges from transformers and unit substations to rectifiers and d-c load centers. Modernization of auxiliary service requirements in areas such as building heat, process steam, compressed air and electrical energy results in faster, cheaper and safer over-all power utilization. And a G-E equipped repair shop, adequate for today's needs, gives you simplicity, minimum change-over difficulties and capabilities for expansion—all at a reasonable first cost.

Depending upon particular shop conditions, you can clear the tracks for major economies up to 50% or more in annual cost of providing modern diesel auxiliary services. And before fixed charges, your return on capital investment may yield from 25 to 50 percent.

SAVINGS THROUGH MODERNIZATION. Partial progress toward modernized diesel repair facilities has, of course, already come about in some railroad shops. For example, many have discontinued generating and converting their own power. But in others, as well as these, there is room for greater economy through further modernization. General Electric, world's largest manufacturer of electrical apparatus, can help you plan the most modern power supply, distribution and utilization of auxiliary services with up-to-date G-E equipment.

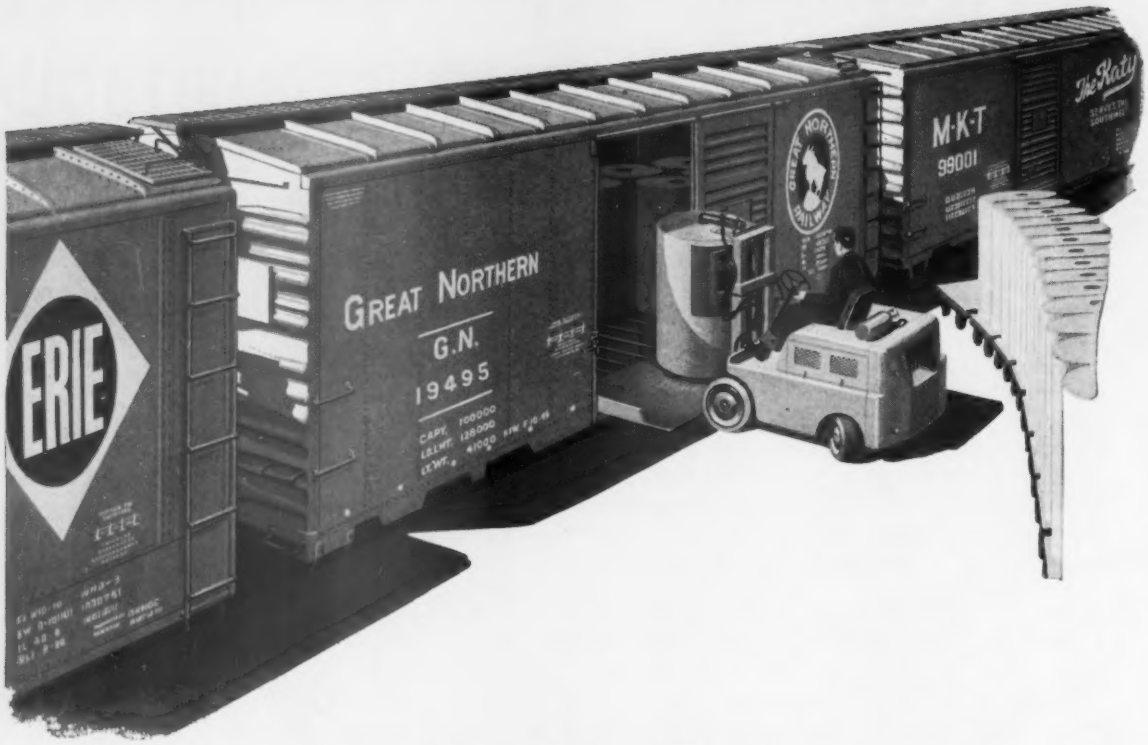
For a free exploratory engineering survey of your repair shop, contact your nearest G-E Sales Engineer and for free booklet, "Modern Electrical Equipment for Railroad Installations," write Section 152-57, General Electric Company, Schenectady 5, N. Y.

Progress Is Our Most Important Product

GENERAL ELECTRIC

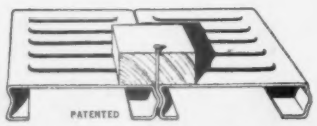
MODERN METAL-CLAD SWITCHGEAR gives greater protection for motor-driven air compressors. Up-to-date controls provide utmost safety for operator, too.

SELENIUM RECTIFIERS are used in diesel repair shops for direct current power supply to machine tools, cranes, elevators and other auxiliary equipment.



Satisfy shippers and cut costs with **N-S-F**

The secure steel construction of N-S-F, with the unique nailable steel grooves for blocking, satisfies the requirements of every shipper. What's more, NAILABLE STEEL FLOORING eliminates costly out-of-service time caused by bad-order floors. Naturally Shippers Favor N-S-F.



NAILABLE STEEL FLOORING is made of low-alloy N-A-X HIGH-TENSILE steel—remarkably strong, corrosion resistant—formed into channels, and welded together to form a unique nailing groove. Nail is clinched in tight grip of steel, yet can be readily removed.

Complete engineering and cost data available from Great Lakes Steel Corporation, Steel Floor Division, Ecorse, Detroit 29, Michigan. Sales representatives in Chicago, Philadelphia, St. Louis, Atlanta, Omaha, Denver, San Francisco, Montreal, and New York.

GREAT LAKES STEEL CORPORATION

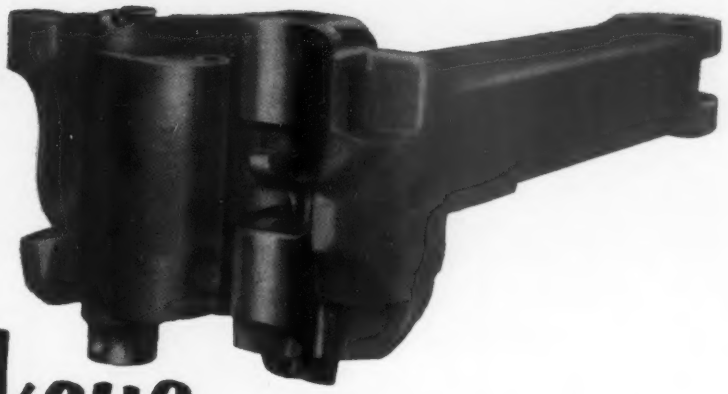
UNIT OF
NATIONAL STEEL CORPORATION

NAILABLE STEEL FLOORING
PAVES THE WAY TO ALL-STEEL FREIGHT CARS

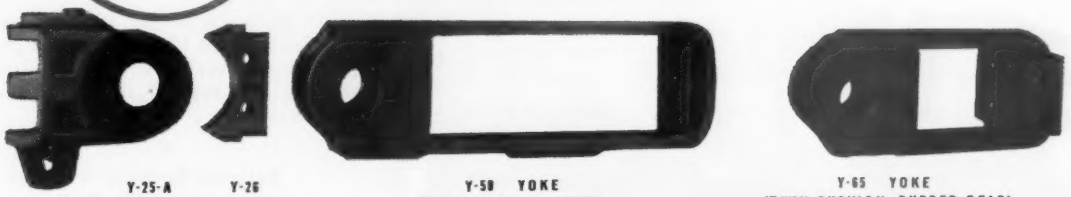
55-SF-2A

..provide
mile after mile of
comfort and safety–

Use A.A.R. STANDARD TYPE H
TIGHTLOCK COUPLER
and
ATTACHMENTS



with Buckeye BUILT-IN QUALITY



Y-25-A Y-26
RADIAL CONNECTION & SEAT

Y-50 YOKE
(CONVENTIONAL GEAR)

Y-65 YOKE
(TWIN CUSHION RUBBER GEAR)

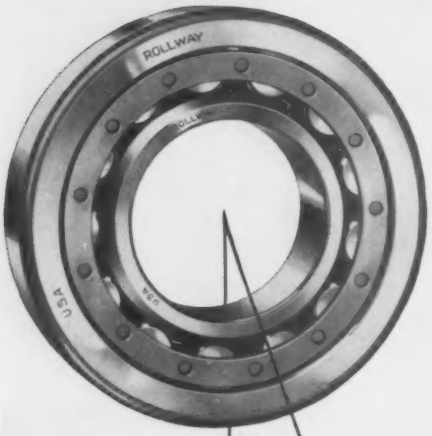
- NO SLACK IN COUPLER CONTOUR . . . NOISE ELIMINATED
- COUPLER INTERLOCK PROVIDES MAXIMUM SAFETY
- IMPROVED LOCK ANTI-CREEP PROTECTION
- MINIMUM WEAR AND MAINTENANCE
- MEETS A.A.R. PASSENGER CAR SPECIFICATIONS

FOR COMPLETE INFORMATION . . CALL or WRITE . .

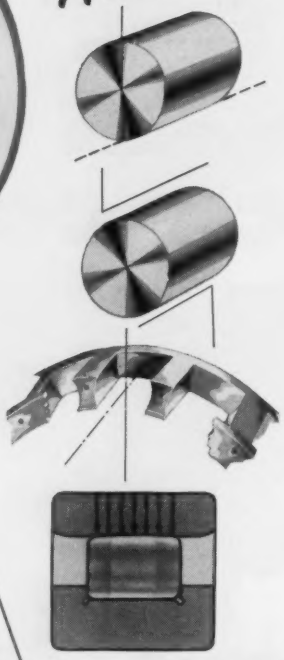
Refer Adv. No. 11879

The Buckeye Steel Castings Co.
★ COLUMBUS, O.
★ NEW YORK, N.Y.
★ CHICAGO, ILL.
★ ST. PAUL, MINN.

You get thousands more road miles from ROLLWAY Pinion & Commutator Bearings



Here's why:



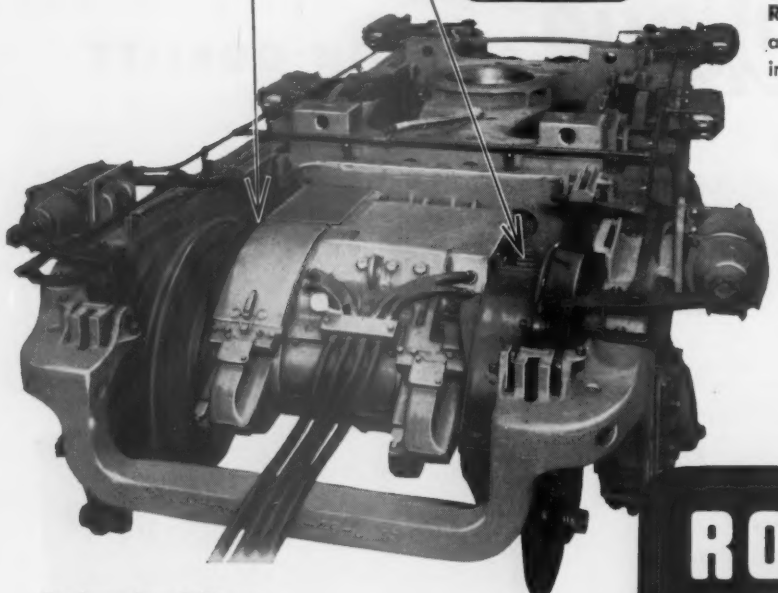
RIGHT ANGLE ROLLER ENDS
precisely square to avoid end-rub, oscillation and side-shock.

RIGHT ANGLE BEARING SURFACES
precisely parallel to promote unwavering right-line rolling.

RIGHT ANGLE SEPARATOR SLOTS
precisely machined to prevent roller skew, slide and uneven wear.

CROWNED ROLLERS
with carefully selected crown radius on roller ends to distribute stresses uniformly and increase capacity.

ROLLER-RIDING RETAINERS
accurately supported on rollers to increase efficiency at high speeds.



Maintenance Engineers:

Rollway's Factory Reconditioning restores used bearings at lowest possible cost . . . a service made available through Rollway distributors and branches in principal cities.

Rollway Bearing Co., Inc.
Syracuse 4, N. Y.

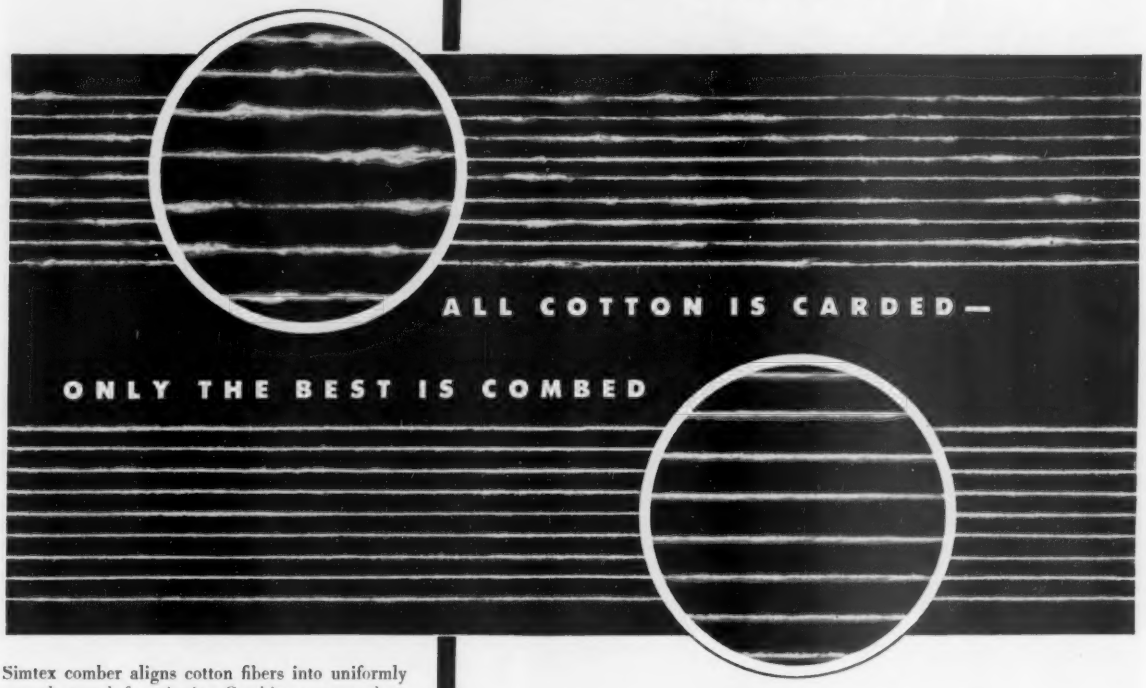
Engineering Offices:

Syracuse • Boston • Chicago • Detroit • Toronto • Pittsburgh • Cleveland
Milwaukee • Seattle • Houston • Philadelphia • Los Angeles • San Francisco

ROLLWAY BEARINGS

COMPLETE LINE OF RADIAL AND THRUST CYLINDRICAL ROLLER BEARINGS

Simtex combs the headaches out of tablecloths



Simtex comber aligns cotton fibers into uniformly smooth strands for spinning. Combing removes short fibers, increases strength, wear-life and improves appearance, hand and surface of cotton tablecloths. Magnifications above show superiority of combed cotton over carded cotton.

SIMTEX MILLS has set up the tablecloth industry's most extensive *Quality Control* program. And combing, more than any other step in this program, is responsible for the precision engineering of Simtex tablecloths to close tolerance of uniformity. What does it mean to you? Just this:

> Lustre that lasts—texture that *stays* luxurious—a hand that remains fine and crisp through *countless launderings* and endless *use*. Cloth for cloth, Simtex outlives all other napery. Simtex *predictable wear-life* lets you budget your replacements in advance: Simtex quality pays off in economy.

It's smart housekeeping to specify Simtex tablecloths and napkins—with your own distinctive crest, if you wish. *You can always count on Simtex quality.*

Simtex **Mills,** Division of Simmons Co.,
Empire State Bldg., New York 1, N. Y.

*New KEM KOLD BILD being applied on new cars at Berwick, Pa., plant of A C F Industries, one of several leading car builders using this new one-coat spray material.

Now two-coat protection with one cold-sprayed coat...stencil in 2 to 3 hours!

Eliminate time for drying and application of second coat . . . save material and out-of-service costs! One full coat of new KEM KOLD BILD has the build of two standard coats using conventional spray equipment. It dries in 1½ hours and is ready for stenciling in 2 to 3 hours.

KEM KOLD BILD produces a dry-film thickness as heavy as 2½ mils. Good film flow with a minimum of overspray. And KEM KOLD BILD dries to a bright gloss that stands up under repeated cleanings and tough service. Doesn't lift or affect primers. No pinholing or bubbling from entrapped solvents during or after application.

KEM KOLD BILD is being used by leading railroads and car builders now. Why not arrange for a demonstration by contacting The Sherwin-Williams Co., Transportation Sales Division, Cleveland 1, Ohio.

(In Canada: 2875 Centre Street, Montreal)

SHERWIN-WILLIAMS RAILWAY FINISHES

†Trade-Mark

LOWER MAINTENANCE COSTS ALL THE WAY...

Amcreco
Lowry Process
Creosoted Products

Bridge Timbers
Adzed and Bored Cross Ties
Poles
Plank

Pressure treated for
Strength that lasts!

with AMCRECO Creosoted Products

Long service life with minimum maintenance—that's how Amcreco quality products reduce maintenance-of-way costs to the lowest possible level. Amcreco cross ties, bridge timbers, poles and plank last longer with greater strength because they are pressure treated in creosote by experienced Amcreco methods.

Start now and lower your maintenance-of-way costs by taking advantage of our nearly half a century of wood treating experience. Call your nearby Amcreco sales office for positive information on maintenance cost reduction.

AMERICAN CREOSOTING COMPANY

COLONIAL CREOSOTING COMPANY INCORPORATED

AMRECO

GEORGIA CREOSOTING COMPANY INCORPORATED

GENERAL SALES OFFICE—CHICAGO, ILLINOIS
18 FIELD SALES OFFICES TO SERVE YOU

PRES-TO-LOGS

Preferred Fuel for Dining Car Kitchens

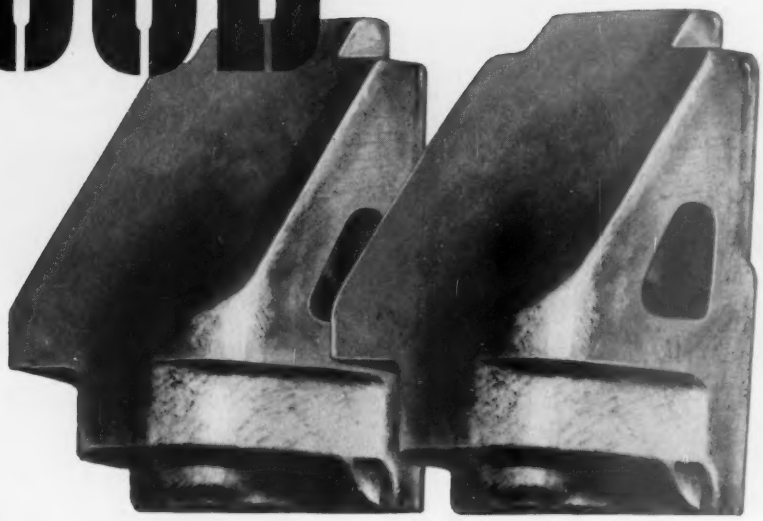
FOR DINING CAR USE, Pres-to-logs are a perfect fuel. Railroads have used—and continue to use—these compressed sawdust logs because of their many advantages in the preparation of good food.

Pres-to-logs are clean, easy to handle, and require very little storage space. They are long burning, and furnish steady, intense heat. A minimum of draft is needed, and there is no objectionable back gas. Cooks find Pres-to-logs excellent for short orders as well as all other cooking.

- ✓ CLEAN
- ✓ CONVENIENT
- ✓ ECONOMICAL
- ✓ EASY TO HANDLE
- ✓ EASY TO CONTROL
- ✓ VERY LITTLE DRAFT REQUIRED
- ✓ NO OBJECTIONABLE BACK GAS
- ✓ FREE OF ASHES, SMOKE, SOOT, SPARKS, ODOR, PITCH and SLIVERS

PRES-TO-LOGS | **WOOD BRIQUETTES, INC.** *Lewiston, Idaho*

GOOD



These are Barber special-alloy friction shoes.

FOR HALF A MILLION MILES . . .

. . . OR MORE!

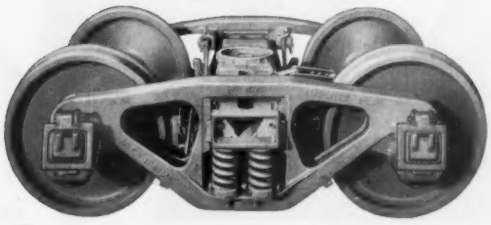
Then after 14 or 15 years of hard service, inspect the friction shoes of a Barber Stabilized Truck.

Any friction device should wear if it is operating properly. No *friction* means no *wear* . . . no shock-absorbing action. Knowing this, Barber has researched and tested the all-important friction-bearing surfaces of these shoes for many years. They are made to provide the longest possible service life consistent with the positive action that protects your ladings.

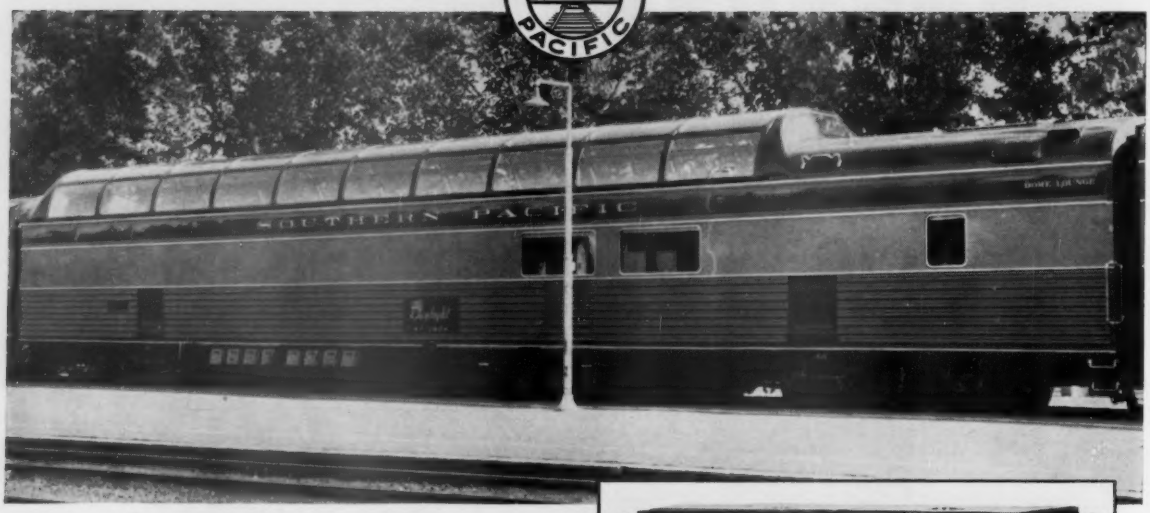
Occasionally a Barber Truck should have new shoes. Replacement is simple, quick and inexpensive in this, the easiest of all trucks to dismantle and service. Then at very small cost you will have completely restored the useful life and smooth-riding action of the Barber Truck for another half a million miles!

Specify Smoother-Riding

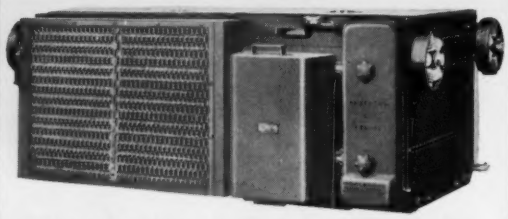
BARBER
STABILIZED TRUCKS



Standard Car Truck Company, 332 S. Michigan Ave., Chicago 4, Illinois. *In Canada:* Consolidated Equipment Co., Ltd., Montreal 2.



NEW SP DOME CAR AIR CONDITIONED with TWO WAUKESHA Ice Engines



Waukesha Propane Ice Engine Unit, 7-10 tons, is a four-cylinder, four-cycle, propane-fueled internal combustion engine and a reciprocating type refrigerant compressor, in a sound-absorbing steel housing cushion-wheel mounted on roll-out tracks under the car.

● The new Southern Pacific dome car seats 64 passengers on two levels but under the same dome—48 in the lounge-observation upper level, and 16 in the cocktail lounge six steps below. The 81-ft. car was built in SP's Sacramento shops. The dome, 62-ft. long, is about 20-in. higher than a standard coach.

The car has two independent air conditioning systems, being equipped with two 7-10 ton Waukesha Railway Ice Engines each of which is an independently operated, propane-engine driven, mechanical refrigeration unit. Waukesha units and their fuel tanks are below the car frame.

Southern Pacific today owns several hundred Waukesha engine-driven air conditioning and electric generating Enginator® units. The railroad has been using Waukesha units on passenger trains since 1936.

SEND FOR DESCRIPTIVE BULLETINS

RAILWAY DIVISION

WAUKESHA MOTOR COMPANY · Waukesha, Wisconsin

Largest Builders of mobile engine-driven Refrigerator and Generator Equipment

260

Leading Car Builders turn to Heywood for Comfort....

...Because at Heywood-Wakefield

"Comfort Is Our Business"

HEYWOOD-WAKEFIELD

EST. 1826

Travel almost any railroad on the North American continent—aboard sleek de luxe streamliner, coach or commuter train—and you will find Heywood-Wakefield seating. For generations, Heywood has worked with all leading car builders, and with railroads themselves, to attract more rail passengers through scientifically developed seating comfort. Seating for all of these installations has been custom engineered, often to highly unusual specifications requiring the most advanced technical know-how and manufacturing skills. That these manufacturers and railroads continue to bring their seating problems to Heywood-Wakefield is proof that Heywood delivers maximum comfort and lowest maintenance cost.

acf

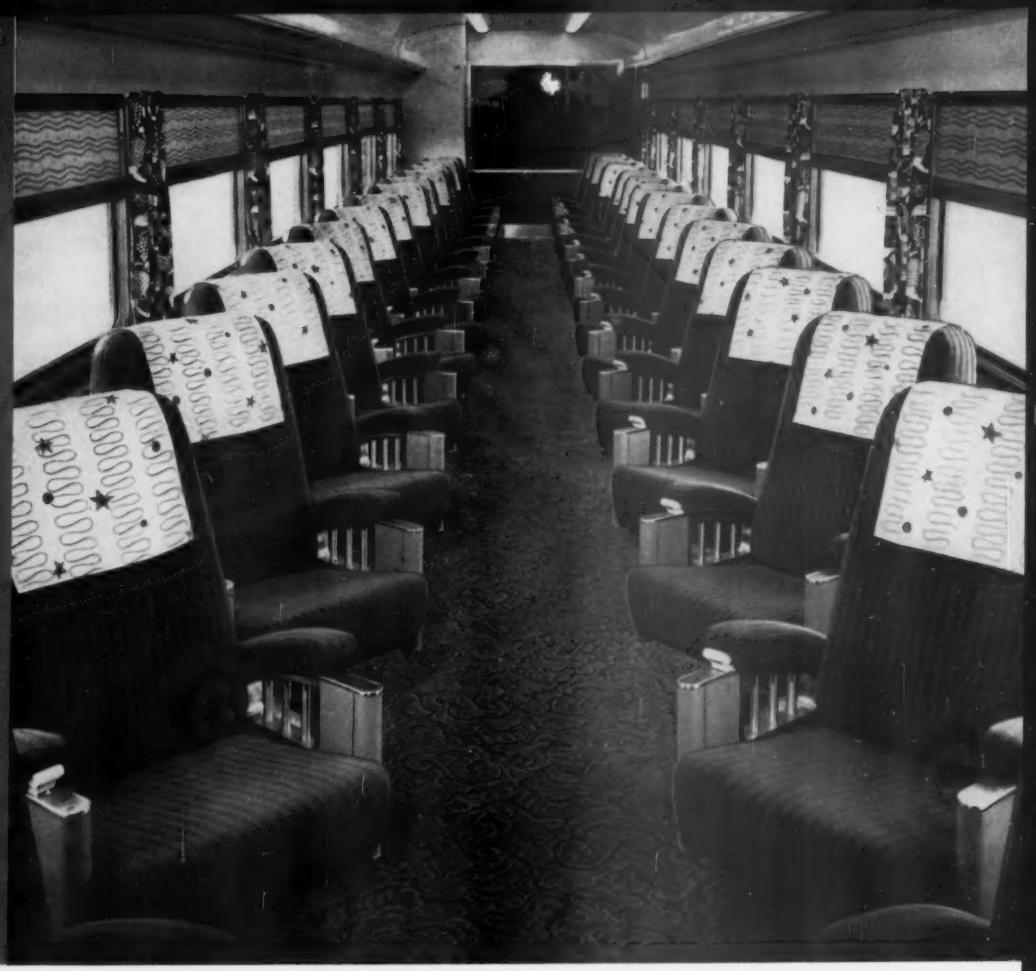
Specially designed Dome Settees on the observation upper level of new Union Pacific dome cars built by ACF Industries Incorporated. Notice how seats are angled for viewing pleasure.

PULLMAN

Interior view of coach, one of twenty-three sleepers, coaches and parlor cars recently delivered to Northern Pacific Railway by the Pullman Company. Heywood seating and sleeping units were installed throughout.

Budd

Pennsylvania Railroad passengers enjoy the luxurious comfort of Heywood-Wakefield Parlor Car Reclining Chairs aboard the Congressional and Senator streamliners. Sixty-four cars were built by the Budd Company.



St. Louis Car Company

Smooth, easy operation and long, trouble-free service are features of the lever type Walk Over Seats installed by St. Louis Car Company on commuter coaches for the New York Central System.

C. C. & F.

A part of Canadian National Railway's great modernization project, one hundred sixty-one first class coaches built by Canadian Car & Foundry Co. were seated with Heywood's famous Reclining Chairs.

GM *Train of Tomorrow*

HEYWOOD-WAKEFIELD

EST. 1826

HEYWOOD IS PROUD OF THE COMPANY IT KEEPS

These are among the many leading railroads who are setting new standards for passenger travel comfort with Heywood-Wakefield seating. Your Heywood representative will be happy to give you complete details of the many seats and sleeping units available to bring the ultimate in modern comfort to your own passengers.

HEYWOOD-WAKEFIELD
Transportation Seating Division
Gardner, Mass., Orillia, Ontario, Canada

In Canada:
Railway & Power Engineering Corp., Ltd.

Guardian Lockers, like the above at LaSalle Street Station, Chicago, show a 69% net profit on the investment . . . after liberal deductions for depreciation, services, interest on investment, etc.

. . . another step in railroad progressiveness

GUARDIAN LOCKERS
boost net profits
by 52.5%*

*name of terminal on request

Your passenger stations are the showcases of your railroad. Every visitor, who meets an incoming friend or speeds an outgoing one, is a potential train rider.

Streamliner-styled Guardian Lockers—in shining stainless steel—will give your stations a *new look* overnight. They will attract new passengers . . . please present passengers.

And, they mean more profits.

In stations from coast to coast, Guardian's modern design is increasing usage and gross revenues, while *ownership control* is decreasing costs. The result, is *added* net profits—up to 50% and more—enough to pay for the lockers in a surprisingly short time.

The nation-wide Guardian sales and service organization will be happy to give you facts and figures on how you, too, can earn more profits with prestige-building Guardian Lockers. AA-1410

THE FLXIBLE COMPANY
LOUDONVILLE, OHIO

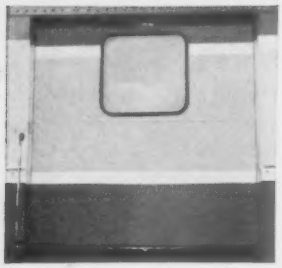
Flxible

MET-L-WOOD DOORS

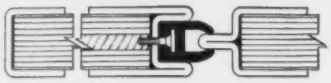
METAL BONDED TO PLYWOOD

★ LIGHT... TOUGH... DURABLE
★ NO THROUGH-BOLTS
NO WARPING
★ NO TWISTING
NO SWELLING

BAGGAGE AND POSTAL CAR DOORS



Completely weatherproof Met-L-Wood doors effectively prevent internal rust and rot... and their tough, smooth surfaces stay new-looking for years. Stainless steel channels along bottom edges of sliding doors are rustproof... virtually wearproof. All-rubber window sash installed or removed in minutes... rattle-proof... water- and weatherproof. Available in full width and split types ... sizes to meet all needs.



Exclusive Split Door Seal

Drawing above shows simple Met-L-Wood Split Door Seal which assures weather- and watertightness for years of continual use. Seal also provides effective cushion when closing split doors.

PASSENGER CAR END, VESTIBULE, INTERIOR DOORS

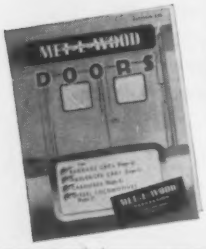
Sound-deadening, insulating, vibration-damping Met-L-Wood doors for passenger cars add to service life, cut deadweight ... Combine modern, clean-line beauty with great strength and durability. Furnished for manual or automatic operation, with or without hardware assembly. Tapping plates for hardware are built into doors ... invisible additions to strength and trouble-free service life. Sizes and types to fit all requirements ... exact dimensions insure quick assembly and perfect fit. Door thicknesses from ½" up, as required.

CABOOSE DOORS

Met-L-Wood caboose doors are built to last the life of the caboose—and to give trouble-free service the whole time. Weather-proof, warp-proof, rot-proof doors can be provided with or without stationary windows in all-rubber sash or with standard drop sash. Available with or without hardware. In all sizes to exactly meet specifications.

DIESEL LOCOMOTIVE DOORS

Widely used by builders on new locomotives, Met-L-Wood doors guarantee trouble-free operation of end and interior doors on diesel road locomotives and cab doors for diesel switchers. Furnished to exact dimensions, with or without windows; either with hardware installed, or with tapping plates placed for hardware assembly on the job.



Write for this Bulletin

Met-L-Wood Bulletin 520 gives the complete, illustrated story on Met-L-Wood doors for railroad uses ... shows construction details, describes standard and special types and sizes. Your copy sent free upon request—write for it today.

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CORPORATION

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MET-L-WOOD • *STRONG... LIGHT... Smooth Finish... Sound Deadening... Fire-Resisting... Insulating*

Easy Does It on Yard Switchers

The Westinghouse 6-SL is as flexible as the brake on your automobile. You get just the right amount of brake every time, for any cut of cars.

Westinghouse Air Brake
COMPANY
AIR BRAKE DIVISION WILMERDING, PA.

Railroad men recognize a familiar sign, the sign of long bearing life... when they see SKF on *The Canadian* built by Budd Co.

Canadian Pacific's choice of SKF roller bearings for this crack train is significant of the preference for SKF by railroads everywhere.

Because of an outstanding record of dependability and operating economy, more passenger and freight cars throughout the world are equipped with SKF than any other make of anti-friction bearings. 7830

SKF®

SKF INDUSTRIES, INC., PHILADELPHIA 32, PA.—
manufacturers of **SKF** *and* **HESS-BRIGHT®** *bearings.*

Time ... rides on your side with *Streamlite* HAIRINSUL

LOW CONDUCTIVITY . . . Thoroughly washed and sterilized, all-hair heat barrier. Rated conductivity —.25 btu per square foot, per hour, per degree F., per inch thick.

LIGHT WEIGHT . . . Advanced processing methods reduce weight of STREAMLITE HAIRINSUL by 40%.

PERMANENT . . . Does not disintegrate when wet, resists absorption. Will not shake down, is fire-resistant and odorless.

EASY TO INSTALL . . . Blankets may be applied to car wall in one piece, from sill to plate and from one side door to the other. Self-supporting in wall sections between fasteners.

COMPLETE RANGE . . . STREAMLITE HAIRINSUL is available ½" to 4" thick, up to 127" wide. Stitched on 5" or 10" centers between two layers of reinforced asphalt laminated paper. Other weights and facings available.

HIGH SALVAGE VALUE . . . The all-hair content does not deteriorate with age; therefore has high salvage value. No other type of insulation offers a comparable saving.

. . . because time has yet to destroy or impair the high insulating efficiency of *Streamlite* HAIRINSUL

Even after twenty or more years of service, STREAMLITE HAIRINSUL has been removed from refrigerator cars and re-used in new cars without need for further processing or renovating.

STREAMLITE HAIRINSUL, the all-hair insulation that actually weighs 40% less and gives so much more in efficiency and economy is a one-time investment.

At left are still more reasons why leading car builders demand STREAMLITE HAIRINSUL for efficient insulations. Write for complete data.

MERCHANDISE MART, CHICAGO 54

SETS THE STANDARD BY WHICH ALL OTHER REFRIGERATOR CAR INSULATIONS ARE JUDGED

KEEPING THE **Standard** *UP*
keeps the price down!

Experience has taught us that a quality item not only *lasts longer,* but delivers *more efficient* service during its lifetime.

The **Standard** DIAGONAL PANEL ROOF shown above is a good example. It is *lighter* for equal strength, *stronger* for equal weight. It *adds* structural rigidity to the car. It costs less to buy and use, and it *makes money* for the road by keeping cars *on the line, producing.*

Standard

RAILWAY EQUIPMENT MANUFACTURING COMPANY

GENERAL OFFICE: 4527 Columbia Avenue, Hammond, Indiana

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MANUFACTURERS OF—Standard Improved Dreadnaught Ends—The Standard Diagonal Panel Roof — Standard Metal Floor Protectors — Standard Coupler Operating Device — Standard Positioning Device with Coupler Height Adjustment—and The Standard Wheel Truing Machine.

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WHEEL GRINDERS

NOW! Wheels ground without removal!

NEW WHITING WHEEL GRINDER SAVES TIME . . .

CUTS COST . . . INCREASES WHEEL LIFE!

Here's a revolutionary *advance* in rolling stock maintenance . . . assuring longer, more useful life for locomotives and cars. The new Whiting Wheel Grinder provides an accurate short-cut to restoring proper wheel contour . . . *without removing the wheels* . . . turns shop-time into road-time!

With the Whiting Wheel Grinder, you eliminate the costly, time-consuming process of wheel removal, truing and replacement. Wheels are ground right on the locomotive or car. Operation is comparatively simple. The locomotive, or car, is moved over the grinder pit and positioned. From here on, the Whiting Wheel Grinder does the job . . . fast, efficiently and uniformly. Only two operators are needed and eight pairs of wheels or more are ground in an eight-hour working shift. The new Whiting Wheel Grinder Bulletin tells *how* all this is accomplished—send for a copy today!

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Get the whole story, facts and pictures! Write for new Whiting Wheel Grinder Bulletin No. MS-C-401.

In the Baltimore and Ohio Railroad Cumberland Diesel Shop, the Whiting Wheel Grinder turns out eight pairs of corrected wheels per day. As the operators acquire more experience, this rate is expected to materially increase. The whole operation is done without opening a single bearing box or loosening any bolts or nuts. Photo shows Baltimore and Ohio locomotive being driven right onto the grinder.

Other Whiting-built Cost Savers for Railroad Maintenance Include: Cranes, Drop Tables, Jacks, Train Washers.

UNION PACIFIC RAILROAD COMPANY

Fifty-Eighth Annual Report — Year Ended December 31, 1954

REPORT OF THE BOARD OF DIRECTORS

New York, N. Y., April 28, 1955.

TO STOCKHOLDERS OF UNION PACIFIC RAILROAD COMPANY:

The Board of Directors submits the following report for the Union Pacific Railroad Company, including its Leased Lines,* for the year ended December 31, 1954.

CONDENSED STATEMENT OF INCOME

	1954	1953
Operating revenues	$481,786,451	$530,024,300
Operating expenses	$365,858,880	$400,427,365
Taxes (including taxes on income from oil and gas operations and other non-transportation sources)	63,686,778	77,636,443
Equipment and joint facility rents—net charge	22,679,243	23,100,566
Net income from transportation operations	$ 29,561,550	$ 28,859,926
Net income from oil and gas operations (excluding income taxes)	33,743,135	34,318,992
All other income	12,133,390	13,003,414
Total income	$ 75,438,075	$ 76,182,332
Fixed and other charges	5,815,410	5,752,119
Net income from all sources	$ 69,622,665	$ 70,430,213
Released from "Reserve against possible refunds on U. S. Government shipments"	.....	535,127
Total for disposition	$ 69,622,665	$ 70,965,340

As indicated above, net income from transportation operations includes taxes on income from other sources, in conformity with accounting regulations of the Interstate Commerce Commission. If Federal taxes on oil and gas income were added back to transportation income and subtracted from oil and gas income, net income from transportation operations would be $40.3 million in 1954 and $39.8 million in 1953, while net income from oil and gas operations would be reduced to $23 million in 1954 and $23.4 million in 1953.

Total income for disposition, before appropriation of dividends on preferred and common stocks of Union Pacific Railroad Co., represented a return of 7.23 per cent on the average equity during the year of Union Pacific Stockholders in the Company (par value of capital stock plus surplus), which compared with a return of 7.69 per cent in 1953.

Net earnings per share of common stock, after preferred dividends, amounted to $14.76, or 31 cents less per share than in 1953.

OPERATING REVENUES

The number of tons of revenue freight carried was 6.7 per cent less than in 1953, although the average haul per ton (about 615 miles) was slightly longer. The reduction in the volume of *freight traffic* was principally in the movement of west-bound manufactured products due to continuance throughout 1954 of the slow-down in economic activity, in many industries, which started in the latter part of 1953. *Freight revenue* was also adversely affected by a decline of 3.1 per cent in average revenue per ton-mile resulting from a relatively greater decrease in the volume of commodities (such as manufactured products) carried at higher freight rates than in the volume of commodities carried at lower rates. There was no change in the general level of freight rates.

*Leased Lines are: Oregon Short Line R.R. Co., Oregon-Washington R.R. & Navigation Co., Los Angeles & Salt Lake R. R. Co., and The St. Joseph and Grand Island Ry. Co. Figures in the Income Account and other tables are stated on a consolidated basis, excluding offsetting accounts between companies.

(Advertisement)

The largest *decreases* in revenue were in *automobiles, other vehicles, and parts,* because of lighter demand and some diversion to highway motor carriers; *ammunition and explosives,* reflecting reduced military requirements in the Far East; *iron ore* and *iron and steel products,* chiefly due to the closing of one steel plant on the lines of the Union Pacific and reduced operations of other steel plants throughout the country; *machinery and parts,* as result of the lower level of business activity; *bituminous coal,* because of milder weather conditions and continuation of the trend toward the use of other fuels; *petroleum oils,* mainly because of diversions to pipe lines and highway motor carriers; *beer,* caused by a decline in movement from Middle Western breweries to Mountain and Pacific Coast States which were supplied to a greater extent by local breweries; and *wheat,* occasioned by smaller crops and reduced exports from Pacific Coast ports.

The largest *increases* in revenue were in *lumber,* resulting from heavy movement from Pacific Coast States (the construction industry being an outstanding exception to the general slackening in economic activity), and *soda products,* due to greater production at plant at Westvaco, Wyoming. A favorable factor, also, was the expansion of the service for handling *highway truck trailers on flat cars.* This new service in territory between Los Angeles and Salt Lake City, which was inaugurated last year, met with such favorable reception by shippers that further expansion was decided upon. The service is now in operation over the Union Pacific between Los Angeles and Seattle, and arrangement has been entered into with the Southern Pacific Co. for similar service between the San Francisco Bay area and points on the Union Pacific in Utah and Southern Idaho. The service will be extended to other sections of the railroad, as warranted.

The decline of 12.9 per cent in *Passenger revenue* was occasioned by reduced rail travel generally, fewer military movements, and a trend toward greater use of coach service at low fares.

The increase in *Mail revenue* resulted from a 10 per cent increase in compensation for handling and transporting mail retroactive to October 1, 1953.

The decline in *Express revenue* was due to a general decrease in movement of rail express traffic.

The decline in *Other revenue* was principally in receipts from boarding outfits operated for employes, because of fewer outfits in service, and from dining and buffet cars due to decreased travel.

OPERATING EXPENSES

A substantial proportion of the decrease in operating expenses was occasioned by the lesser volume of freight traffic handled, and the remainder was primarily due to the further substitution of diesel and gas-turbine locomotives for steam, and improvement of plant and facilities.

The increased use of diesel and gas-turbine locomotives resulted in substantial economies in the use of fuel and other supplies, cost of repairing locomotives and in enginehouse and other expenses. The effect of the economies is not fully reflected in the reduced operating expenses because of absorbing charges of (a) about $6,500,000 resulting from increased wage rates paid to employes, and (b) about $2,600,000 for certain estimated expenses, such as claims for damage to freight, personal injuries, etc., accrued in the accounts under Section 462 of the Internal Revenue Code of 1954 (it may be that Section 462 will be repealed or amended, with retroactive effect, and the anticipated Federal income tax benefit may therefore not be realized). There was also a net increase of about $2,000,000 in depreciation and retirement charges, resulting chiefly from depreciation on additional equipment acquired.

The principal increase in *wage rates* was 5 cents per hour retroactive to December 16, 1953, which was granted to operating employes (such as conductors, engineers, brakemen, firemen and switchmen). These and nonoperating employes (such as shop, maintenance of way, clerical and telegraph), having 15 years or more of continuous service, were also granted a third week of annual vacation. Additionally, nonoperating employes generally were granted seven "paid holidays" per year effective May 1, 1954.

The average number of employes in 1954 was 49,823, a reduction of 6,111, or about 11 per cent under 1953, whereas total wages and salaries paid ($231,035,018) represented a reduction of only about 8 per cent. Wages charged to operating expenses per share of common stock, amounted to $49.89, or $3.87 less than in 1953, but other operating expenses per share of common stock in 1954 ($32.41) decreased by $3.90 under the previous year.

TAXES

Federal income taxes were less because of decreased taxable income in 1954 and adjustment of overaccrual of income taxes for 1953. In determining income taxes for 1954, taxable income was reduced approximately $22,232,645, or $8,336,609 more than in 1953, representing amortization, on a 5-year basis, of portions of the cost of equipment and other improvements certified by the Office of Defense Mobilization to be necessary in the interest of national defense. This amount exceeded charges against income, under Interstate Commerce Commission regulations, for depreciation on such improvements, by $17,750,644, or $6,223,756 more than in 1953, thus reducing income taxes about $9,230,335 in 1954, or $3,236,353 more than in 1953. The consequent betterment in net income for 1954 was equivalent to $2.08 per share of common stock, or 73 cents more than in 1953. However, such reduction in income taxes constitutes a tax deferment only and not necessarily a true tax saving, because after the cost of the improvements has been amortized, no depreciation on them will be allowable for income tax purposes. Accordingly, income taxes in future years will be greater than if the accelerated amortization had not been allowable.

The decreases in *Federal unemployment insurance* and *Federal retirement taxes* were due to reduced payrolls. The decreases would have been greater except for changes in the laws effecting an increase from $300 to $350 per month in the maximum amount of compensation per employe subject to the taxes beginning July 1, 1954.

Total taxes for 1954 were equivalent to 13.2 per cent of total operating revenues and to $1,278.26 per employe. Total taxes were also equivalent to $14.33 per share of common stock, or only 43 cents less than the Common Stockholders' equity ($14.76 per share) in net earnings.

(Advertisement)

MODERN POWER

The Union Pacific took a long stride forward in 1954 toward the complete modernization of its motive power. At a cost of about $53,000,000 the Company increased its ownership of diesel and gas-turbine locomotives by more than a third with the acquisition of 244 diesel units for freight service, 15 diesel units for passenger service, and 15 gas-turbine locomotives for freight service.

In 1934, the Company acquired the first diesel locomotive ever constructed for transcontinental passenger service and has used diesel locomotives for its transcontinental streamliner trains since that time. Its first diesels for freight service, however, were not purchased until 1947 because the steam fleet was comparatively modern and had considerable remaining efficient service life, and because there is an abundant supply of coal adjacent to Union Pacific lines in Wyoming, belonging to the Union Pacific Coal Company, a wholly owned subsidiary.

In more recent years, with the increase in use of diesels by railroads generally, it has become increasingly difficult to obtain steam locomotive repair parts except at excessive prices, resulting in relatively higher maintenance costs for steam locomotives as compared with diesels. The Company has also been faced with the steadily mounting cost of coal. Furthermore, an expanding volume of traffic and faster train schedules justified a major capital investment in acquiring the most up-to-date power available.

Most of the new units were delivered before July 1st, and all had been placed in service by the end of October. With the acquisition of this additional modern power, practically complete "dieselization" has been attained in the territory west of Green River, Wyoming, and sufficient additional power has been provided to handle all through traffic east of that point, except in periods of peak traffic.

The anticipated benefits from use of the new power during 1954 were reflected in improved efficiency in handling the traffic and in economies realized in both maintenance and transportation expenses. A graphic illustration of the extent of the increase in proportion of operations handled by diesel and gas-turbine locomotives in 1954 is indicated in the following five-year tabulation:

	Percentage of total freight gross ton-miles	Percentage of total passenger train-miles	Percentage of yard switching hours
1954	79.6	73.3	92.4
1953	43.5	62.3	84.4
1952	34.5	55.3	77.3
1951	32.0	47.2	74.5
1950	32.5	46.5	69.0

Such percentages will be even greater in 1955, because the new locomotives will be in service throughout the entire year. Moreover, thirty diesel passenger units and twenty diesel switching locomotives have already been ordered for delivery in 1955.

While substantially increasing the diesel fleet, the Company at the same time continues to develop gas-turbine locomotives, its ownership of this type of power having been increased to 25 by addition of the 15 units in 1954. These locomotives have proved particularly adaptable to heavy duty freight service in mountainous territory and have been used principally between Cheyenne, Wyoming, and Ogden, Utah. They possess certain inherent advantages over diesels, such as (a) the concentration on one chassis of horsepower equivalent to that of three diesel units, which produces economy in hostling, cleaning, etc.; (b) fewer moving parts; (c) use of low cost Bunker "C" oil for fuel; and (d) lower cost for lubricating oil.

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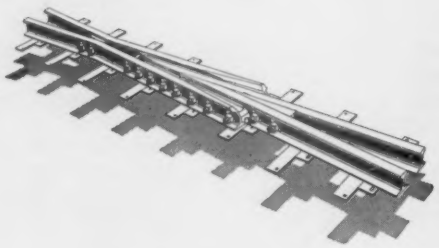

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Crossings—Switches

Your Railroad Track Material requirements tailor-made exactly to specifications.

NELSON IRON WORKS, backed by years of know-how in this highly specialized business, is a recognized leader in the field.

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CABOOSES

BUILT TO MEET THE MOST EXACTING ENGINEERING REQUIREMENTS FOR . . .

ALL STEEL CONSTRUCTION

3 TYPES

ROAD • YARD

BAY WINDOW

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SPECIAL DESIGNED INTERIORS

Built in America's Most Modern R.R. Shop & Yard

We Build New

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There's No Economy in Using Substitutes for "Safety" REPLACEMENT PARTS

"SAFETY" REPLACEMENT PARTS are made of the same high grade materials as used in the original "SAFETY" EQUIPMENT.

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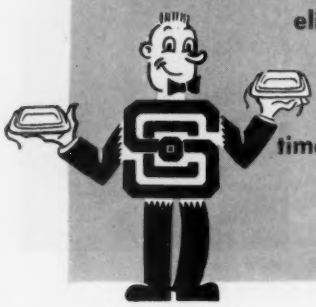

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Competitive replacement parts may look the same... but the DIFFERENCE IS IN THE QUALITY and the PROOF IS IN PERFORMANCE...

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SAFETY COMPANY PRODUCTS INCLUDE: Air-conditioning Equipment • Genemotors • Generators • Fans • Regulators • Blower Units Lighting Fixtures • Switchboards • Luggage Racks • Motor Alternators • Dynamotors • Motor Generators • Dual Voltage MG Sets

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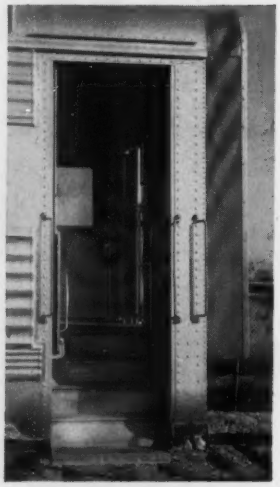
NEW YORK CENTRAL'S FAMOUS 20th CENTURY LIMITED

Typical of the modern streamliners whose builders specify Edwards equipment for peak operating efficiency, long, trouble-free service and maximum passenger satisfaction.

PICTURE WINDOW VISIBILITY

No fog — no film — no frost to obstruct the view, just perfect passenger visibility. The reason is Edwards Double Glazed Sash — "the eyes of transportation" — specified for its modern design and superior construction by leading lines.



STREAMLINED RETRACTABLE STEPS AND TRAP DOORS

Edwards streamlined trap doors and retractable steps combine full balancing action with 6-way adjustment. Operational efficiency is stepped-up . . . original installation is precise, easy, economical. Units are available in steel, aluminum, stainless steel or a combination.

For specifications and complete data, write:
The O. M. Edwards Co., Syracuse 3, N. Y.
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THE EYES OF TRANSPORTATION

SASH FOR EVERY TYPE OF TRANSPORTATION — ON LAND, ON THE SEAS, IN THE AIR

The boss says he never takes a vacation ... *But I know he does!*

"He's a high-pressure, hard-working guy whose first love is his job. Always on the go—never a sick day in his life. Bounds from meeting to meeting. And he travels a lot.

"He says he never takes a vacation. But I know better!

"You see, he almost always travels by *Pullman*. I know because *I* get his reservations and tickets. And when he gets back in town *I* can see how refreshed and rested he looks!

"That chance to *relax* on Pullman trips—to shrug off every last trace of business tension—is a *vacation in itself*. It's his chance to ease back in the diner or club car and enjoy good food and refreshment. To get a good night's sleep in a private room without a moment's worry about highway traffic hazards or weather.

"Yes, sir—I can *always* tell when he's had a vacation by *Pullman!*"

Take a Pullman vacation tonight! Feel that restful peace and quiet. It's America's finest, safest, surest, most comfortable, dependable form of travel!

Relax the miles away over a tempting, hot, freshly-cooked dinner—or your favorite refreshment. Then to bed, in a snow-white, king-size bed. Have a "rent-a-car" reserved for you at your destination, if you wish.

You're safe and sure when you travel by **Pullman**

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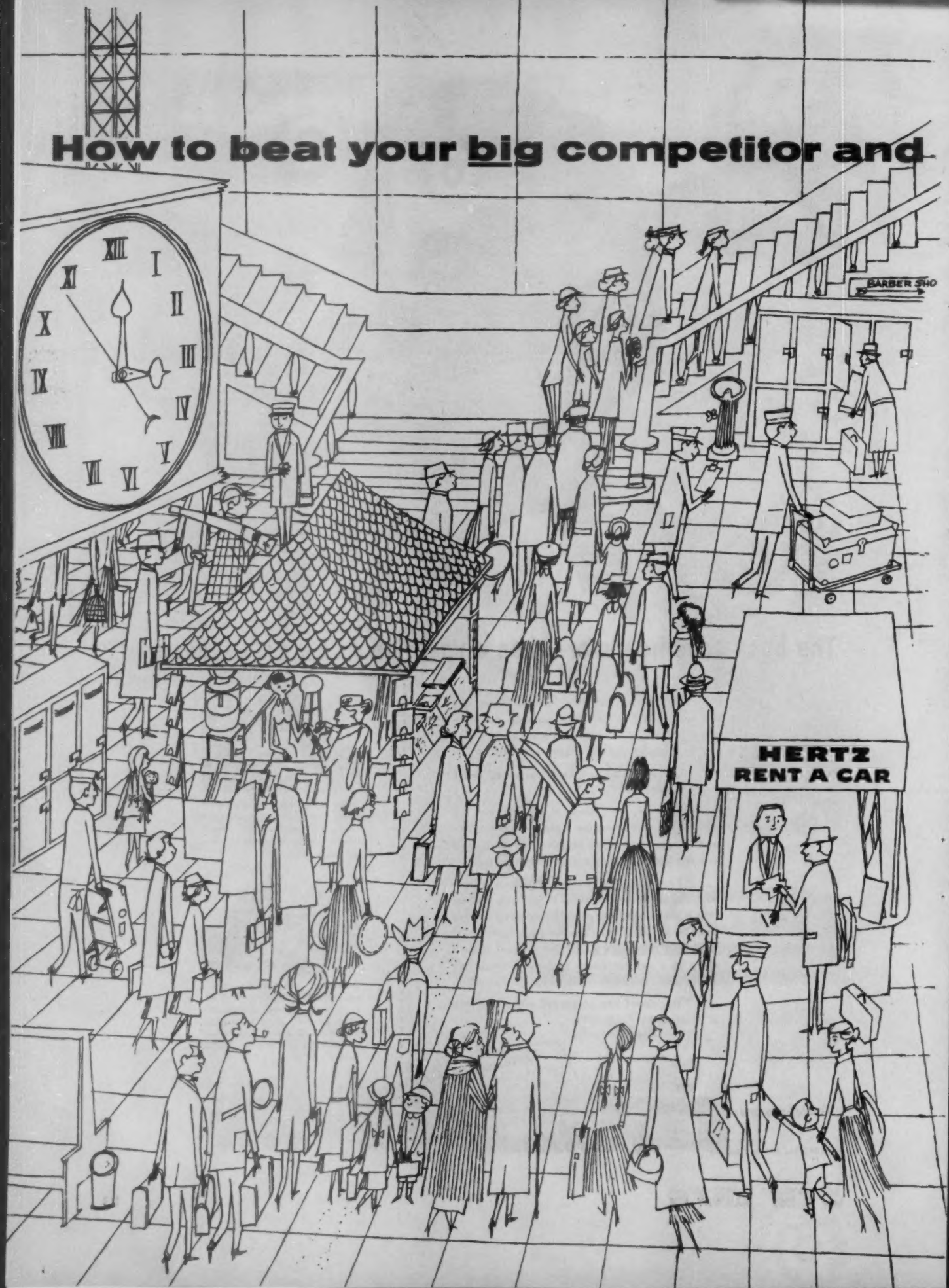
How to beat your big competitor and



Increase Passenger Revenue

According to returns for the first 9 months of 1954 and estimates for the last 3 months, "passenger-miles declined over 9 per cent."*

Competition to railroads is largely responsible for this decrease in revenue... and the biggest competitor is the private automobile in inter-city driving!

*Railway Age, Jan. 10, 1955

HERTZ RAIL-AUTO TRAVEL PLAN IS A PROFIT-PROVED ANSWER

It has already switched millions of passenger miles to the railroads . . . and it can switch millions more in 1955!

It is estimated that in 1954 motorists drove 520 billion miles between cities. Analysis shows that they drove these hazardous tiring miles . . . NOT because they preferred to drive . . . BUT many times because they needed a car at their destination! And remember—this staggering potential of 520 billion miles has hardly been tapped! Now is the time to switch more of this huge mileage to the Hertz Rail-Auto Travel Plan.

Last year alone, people who rented cars from Hertz at their destination actually traveled more than 228,000,000 miles on railroads. These were people who used the Rail-Auto Travel Plan. And—thousands more can be switched to this Plan.

HOW YOU CAN HELP SWITCH ADDITIONAL REVENUE TO YOUR RAILROAD BY PROMOTING THE HERTZ RAIL-AUTO TRAVEL PLAN

1 TRY the Rail-Auto Travel Plan yourself. Enjoy its many advantages. See for yourself why thousands of travelers prefer it to highway travel.

2 TELL your ticket agents about the 10% commission Hertz pays them. Urge them to ask passengers this simple question: *"May I reserve a car from Hertz at your destination?"* It takes only a few minutes to fill out the reservation forms . . . and the Hertz office concerned will pay—promptly—10% commission on the total rental charge.

3 FREE! To remind your passengers of Hertz Service and the Rail-Auto Travel Plan, Hertz provides 3¼" plastic signs attractively printed with these words: *"Reserve your Hertz Rent A Car from your ticket agent."* These signs clamp on the grill of your ticket agents' windows.

Hertz also provides for the counters of your ticket agents and for ticket envelopes, small 2" x 4½" folders describing Hertz Service and the Rail-Auto Travel Plan. Both items are available to you in any quantity at no charge.

4 HERTZ now spends over $1,000,000 a year in leading national magazines to sell the Rail-Auto Travel Plan. In your own advertising, *promote* the Plan. *Show* its many advantages. Use *displays* in your ticket offices. *Advertise* the Plan in your timetables . . . on your *billboards* . . . highway over-passes.

5 AND REMEMBER—only Hertz—the world's largest rent a car system—offers 30 years' experience . . . with more than 9,400 cars at nearly 900 stations in over 550 cities throughout the world. Every car is new, clean . . . and Hertz furnishes all gasoline, oil . . . Public Liability, Property Damage, Fire and Theft Insurance, and $100.00 deductible collision protection—*at no extra cost!* Hertz has more than 1,500,000 people who hold Hertz Charge Cards and Courtesy Cards. Also, Hertz honors Rail Credit Cards.

6 Hertz will install service counters or direct line "Call a Car" phones in your terminals on concession. This added service has proved to be directly and indirectly profitable for many railroads—through concession fees and the additional Rail-Auto Travel it promotes. For full information, or for reservation forms and display material write direct to Hertz Rent A Car System, Department D55, 218 South Wabash Avenue, Chicago 4, Illinois. Phone WEbster 9-5165.

HERTZ *Rent A Car* **SYSTEM**

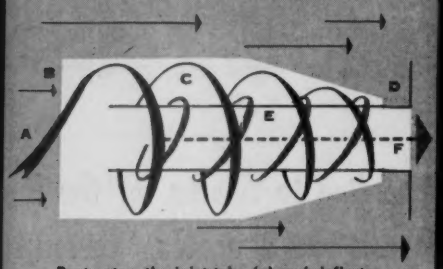
Dept. D55, 218 S. Wabash Ave., Chicago 4, Ill.; phone: WEbster 9-5165

so NEW

so REVOLUTIONARY

YOU'LL BE AMAZED!

Here's the Rotonamic Principle



Dust enters the inlet tube (a) and deflector vanes (b) set up a cyclonic action. While traveling along the primary chamber (c) dust particles are centrifuged towards the walls and carried into a special dust bin at (d) by the 10%-Bleed-off air. The remaining 90% of the air reverses direction, spirals back along the discharge tube (e) centrifuging the remainder of the dust. Clean, filtered air reverses direction once again and exits at (f). The dirt laden air is discharged to atmosphere.

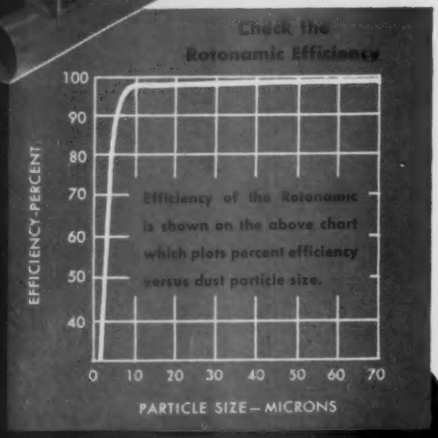
ANNOUNCING THE FARR

Rotonamic

AIR CLEANER

. . . a compact, highly efficient panel-type unit that requires no oiling and is self-cleaning!

FARR—the pioneer developer of the first high velocity air filter whose performance became the standard of the Railroad industry—proudly announces the ROTONAMIC. This new device operates on the principle of centrifugal air cleaning. After years of development and rugged road testing under all dust conditions on several major railroads, the ROTONAMIC has a record of proved efficiency, greater safety factor for extreme dust concentration, and lower maintenance costs.



As advanced and different as the first FAR-AIR high velocity filter, the Rotonamic is the latest important development in air filters. It operates with constant high efficiency over a wide range of dust concentrations, requires no maintenance, never loads with dirt. Handling 1200 cfm at 4.6" wg pressure drop in a 20 x 20" face area, Farr Rotonamic is the most economical solution to engine air cleaning.

For complete information write to P. O. Box 45187, Airport Station, Los Angeles 45, California.

ORIGINATORS OF FAR AIR CERTIFIED FILTER SERVICE

FARR COMPANY

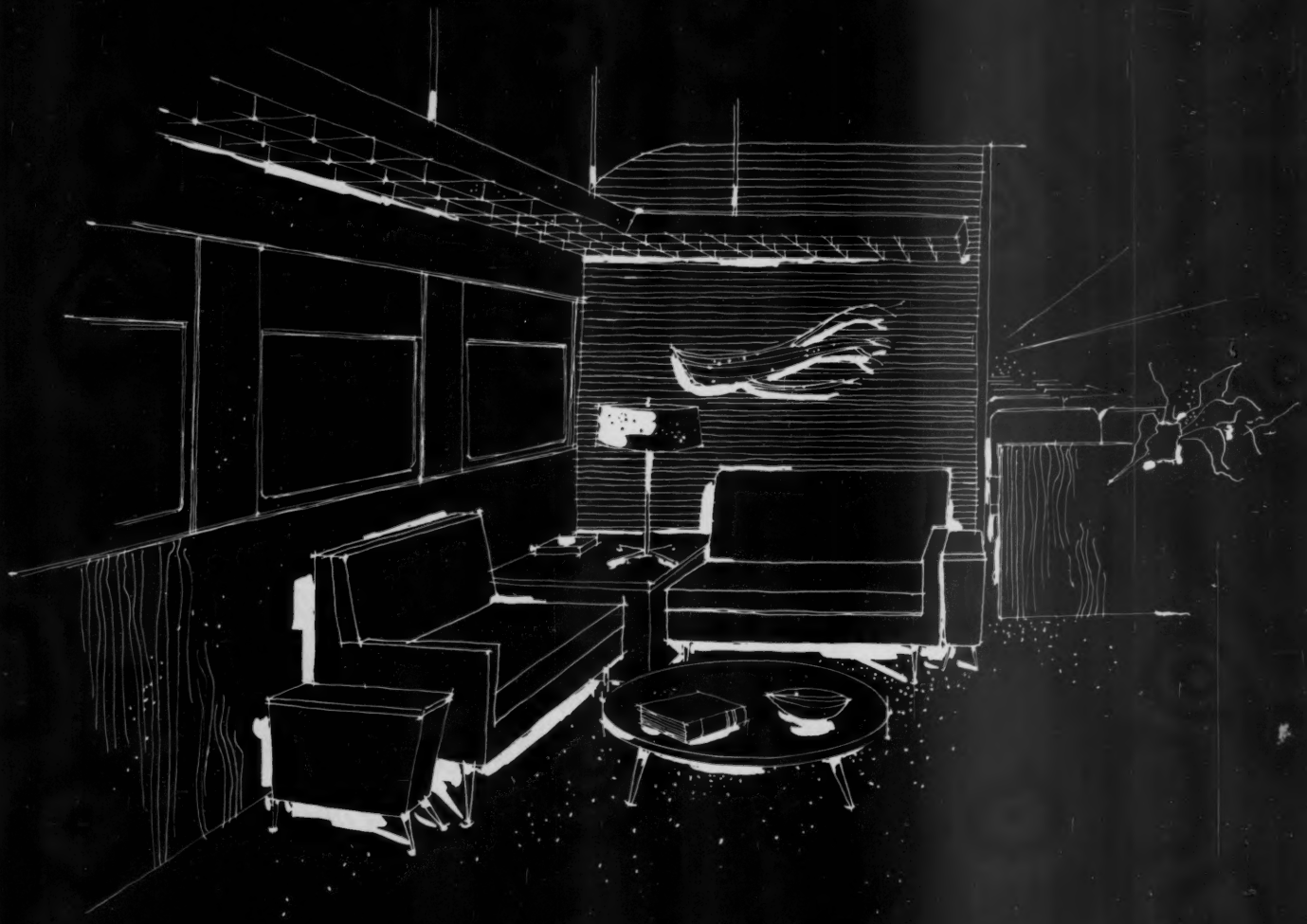
NO COMPROMISE ON QUALITY

Los Angeles, New York, Chicago,

MANUFACTURED UNDER LICENSE BY FARR COMPANY MANUFACTURING LTD MONTREAL, CANADA

A BRAND NEW CONCEPT

In Luxury Travel...



For years we have pioneered Custom Creations of car interiors to exacting standards of railroad utility requirements. Modern decor in metal, plastics...fabrics and wood furniture with plastic tops...handsomely crafted...distinctive in concept and color...the happiest possible meeting of smartness and utility...supreme luxury in travel.

WE DO ALL THAT!

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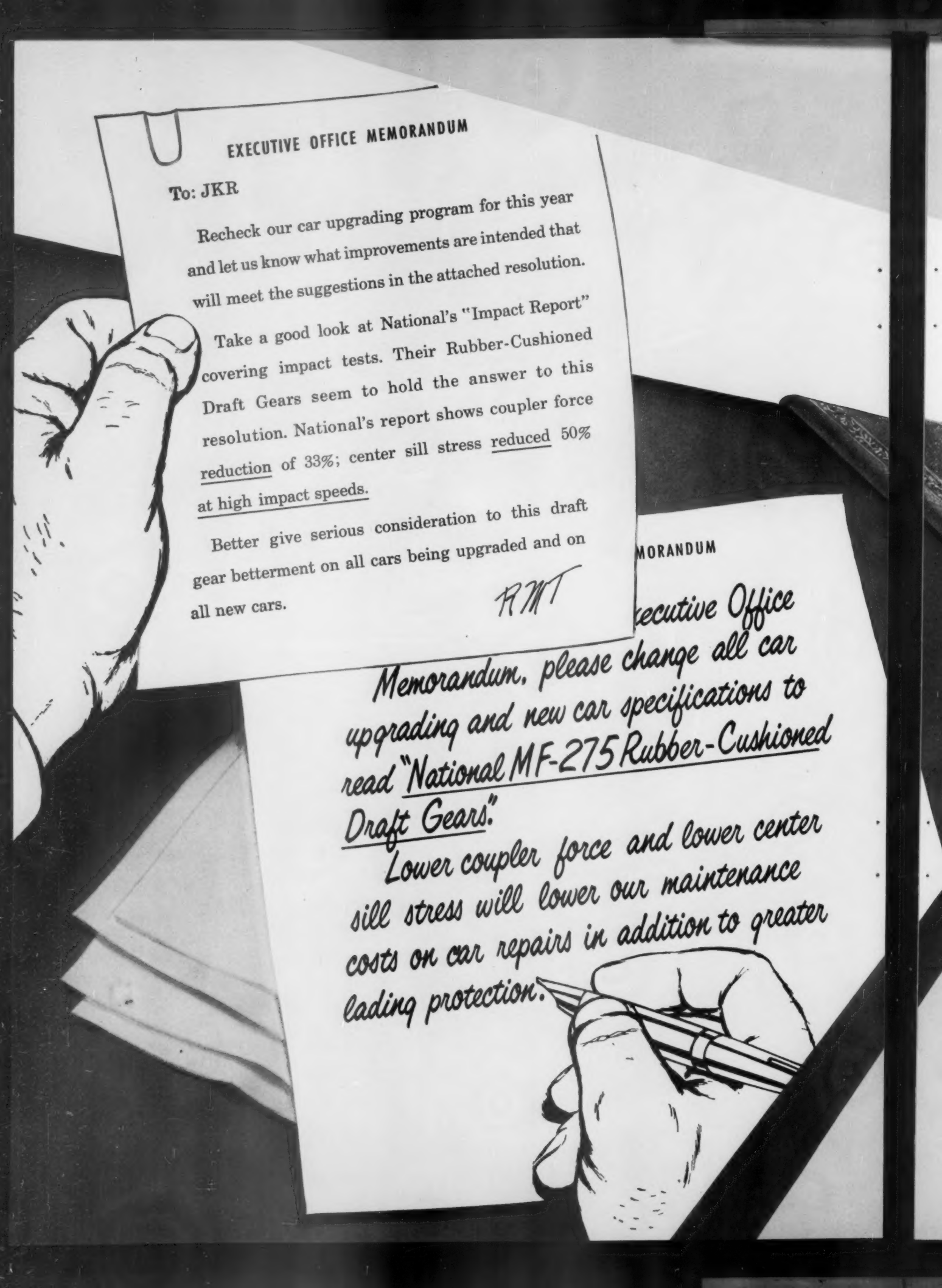
2860 QUINN STREET • CHICAGO 8, ILLINOIS

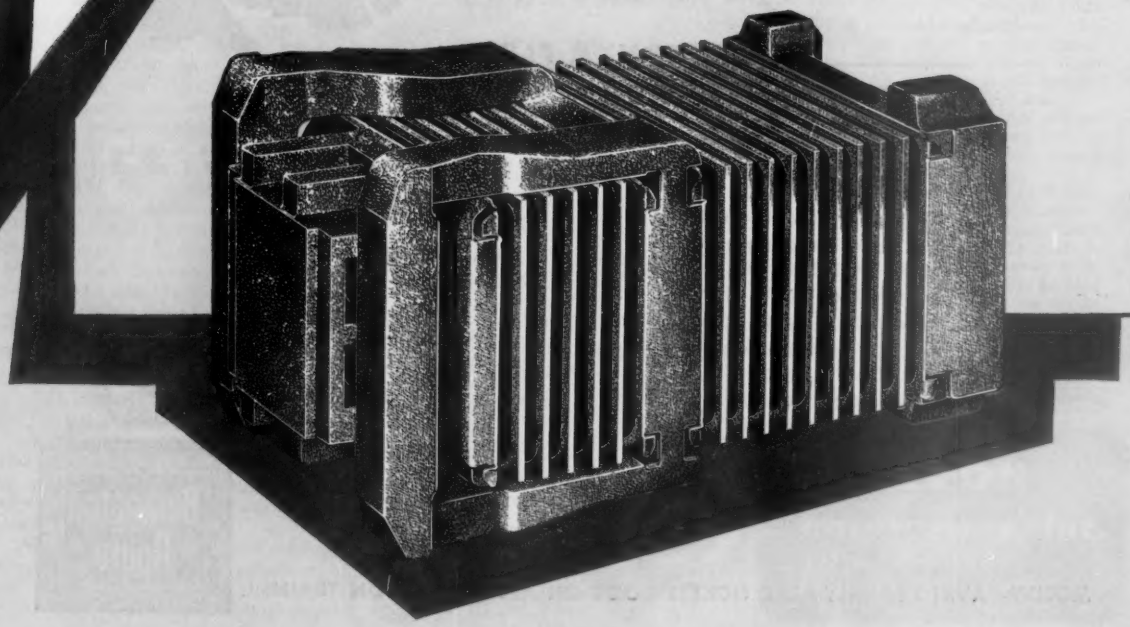

EXECUTIVE OFFICE MEMORANDUM
To: JKR
Recheck our car upgrading program for this year and let us know what improvements are intended that will meet the suggestions in the attached resolution.
Take a good look at National's "Impact Report" covering impact tests. Their Rubber-Cushioned Draft Gears seem to hold the answer to this resolution. National's report shows coupler force reduction of 33%; center sill stress reduced 50% at high impact speeds.
Better give serious consideration to this draft gear betterment on all cars being upgraded and on all new cars.
RMT
MORANDUM
ecutive Office
Memorandum, please change all car upgrading and new car specifications to read "National MF-275 Rubber-Cushioned Draft Gears."
Lower coupler force and lower center sill stress will lower our maintenance costs on car repairs in addition to greater lading protection.

*RESOLUTION NO. 2

BE IT RESOLVED that railroads in all Board territories are requested to make greater use of shock absorbing draft gear and other equipment designed to reduce the effect of excessive car impacts.

* National Management Committee Report,
National Association of Shippers
Advisory Boards,
Proceedings—Eighteenth Annual Meeting
October 14, 1954
Louisville, Kentucky

NATIONAL MF-275 RUBBER-CUSHIONED DRAFT GEAR



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DENVER ZEPHYR
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VISTA-DOME MORNING ZEPHYR
VISTA-DOME AFTERNOON ZEPHYR
THE BLACK HAWK
Chicago-St. Paul-Minneapolis

VISTA-DOME KANSAS CITY ZEPHYR
VISTA-DOME AMERICAN ROYAL ZEPHYR
Chicago-Kansas City-St. Joseph

VISTA-DOME CALIFORNIA ZEPHYR
Chicago-Denver-Salt Lake City-San Francisco

NEBRASKA ZEPHYR
VISTA-DOME AK-SAR-BEN ZEPHYR
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General Passenger Agent
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Burlington Route

MONEY-SAVING FAMILY FARE TICKETS GOOD ON ALL BURLINGTON TRAINS

Current Publications

PERIODICAL ARTICLES

TO TRADERS, THE RAILS LOOK GOOD. Business Week, April 23, 1955, pp. 62-64. McGraw-Hill Publishing Company, 330 W. 42nd st., New York 36. Limited supply of tearsheets available free.

Rail earnings have been going up lately; rail stocks have noticed what's been happening and have soared.

•

TRAFFIC MANAGEMENT: GOLD MINE IN TRANSIT. Dun's Review and Modern Industry, March 1955, pp. 59-102. Dun & Bradstreet Publications Corp., 99 Church st., New York 8. Single copies, 75 cents.

A special emphasis feature of Dun's Review, containing articles on traffic management, packing, and new developments to cut costs, speed deliveries and reduce damage.

•

ORGANIZATION OF DIVISIONS AND BOARDS AND ASSIGNMENT OF WORK, BUSINESS AND FUNCTIONS OF THE INTERSTATE COMMERCE COMMISSION. ICC Practitioners' Journal, March 1955, pp. 516-534. Association of Interstate Commerce Commission Practitioners, 2218 ICC bldg., Washington 25, D.C. Single copies, $1.

Included with this description of the organization of the ICC is a flow chart showing the commission's organization and assignment of work as of March 1, 1955. Copies of the article and the chart may be purchased separately for 50 cents each.

•

164,837!, by Donald M. Steffee. Trains, May 1955, pp. 16-26. Kalmbach Publishing Company, 1027 N. 7th st., Milwaukee 3. Single copies, 50¢.

The figure that serves as the title for this article—164,837—is the daily mileage reeled off at an average speed of 60 or better by U.S. and Canadian trains. The fastest scheduled start-to-stop runs on American railroads in 1954 are listed; fastest of all are still the Burlington's "Twin Cities Zephyrs" between East Dubuque and Prairie du Chien (54.6 miles in 38 minutes, at 86.2 mph). Another table lists other notable runs of 1954, and a third lists aggregate mileage at 60 mph or over.

•

WHAT'S HAPPENING TO THE NY CENTRAL? Business Week, April 23, 1955, pp. 70-82. McGraw-Hill Publishing Company, 330 W. 42nd st., New York 36. Limited supply of tearsheets available free.

Alfred E. Perlman will soon celebrate his first anniversary as president of the New York Central. In the 11 months since Robert R. Young gained control of the road, Perlman has been studying operations and seeking ways to cut costs.

•

THOSE EXPENSIVE HIGHWAYS, by Dero A. Saunders. Fortune, May 1955, pp. 116 et seq. Time Inc., 9 Rockefeller plaza, New York 20. Single copies, $1.25.

Unless Americans do more highway building, the nationwide traffic jam threatens to make them get out and walk. The national Administration has a highway plan with but one major flaw—it costs money. Accompanying the article is a portfolio of road-building machinery.

BOOKS

STEEL TRAILS AND IRON HORSES; A PAGEANT OF AMERICAN RAILROADING, by Lamont Buchanan. 159 pages, illustrations. G. P. Putnam's Sons, 210 Madison ave., New York 16. $3.95.

This "pageant" of America's railroads from yesterday's woodburners to today's diesels contains photographs of scores of famous locomotives, such as the "Best Friend of Charleston," the "Tom Thumb" and the "West Point." Other photos depict highlights in the history and building of the railroads, and scenes of modern railroad operations. Brief text accompanies the photographs.

a 30-day trial will convince you that VI-LAN CLEAN is

a "natural" for men who work with diesels and in diesel shops

It does what soap can not do!

VI-LAN CLEAN

The new, marvelous antiseptic ALL-PURPOSE SKIN CLEANSER that prevents dermatitis and other skin conditions thru the action of.....

ACTAMER

a non-toxic bacteriostat perfected by the Monsanto Chemical Company which exerts a powerful inhibitory action against harmful skin bacteria for 48 hours or more.

VI-LAN CLEAN

does what soap can not do. It removes greases, diesel fuel, paints, acids, printing inks, asphalt, graphite, crater compound, creosote, rubber and gasket cements and other industrial soils.

Positively safe on face and other parts of the body, and the LANOLIN content introduces a soothing balm that restores natural dermal oils. Used with or without water VI-LAN CLEAN will not irritate, sensitize or "fatigue" the skin.

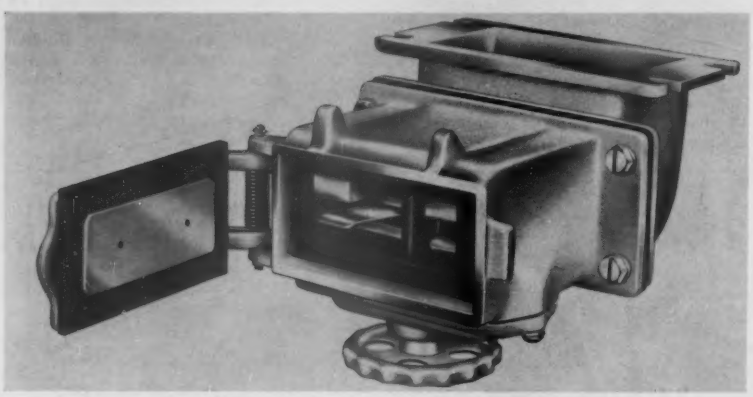
Install VI-LAN CLEAN dispensers in every wash room and on major on-the-job locations. Retard the menace of dermatitis.

For convenient filling of dispensers VI-LAN CLEAN is furnished in polyethylene bags from which you may squeeze all or as much as is needed to fill the dispenser without waste. The bag may also be used as a portable dispenser on trucks and outside jobs.

VI-LAN CLEAN also is available in convenient pint, quart and gallon containers for home and shop use. Write now for descriptive literature.

DAMERON enterprises, inc.
427 So. 20th Street
Louisville 3, Kentucky

What's New in Products



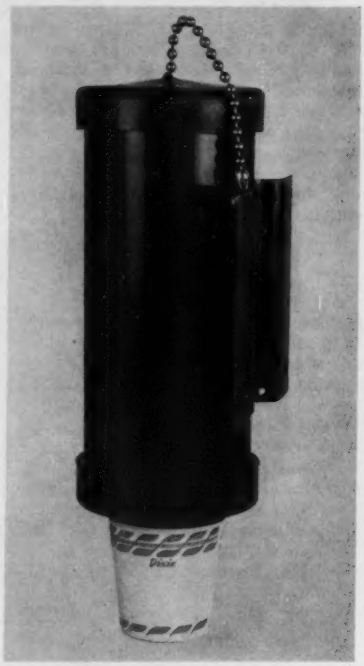
Trainline Receptacle

An improved and simplified battery trainline receptacle, meeting all AAR standard requirements, has been announced. Formerly fabricated of six fibre pieces, the contact insulating enclosure is now a single-piece oil-resistant rubber unit designed to minimize maintenance expense and provide better alignment of contacts through resilient floating action. All current carrying parts are completely enclosed in a gasketed cast aluminum alloy housing. Slotted hexagon cap screws for solder or solderless type terminal lugs are part of the unit. Parallel barriers molded integrally with the rubber insulation unit separate and align wire connections in the receptacle.

These new receptacles, available in 2 and 3-pole types without automatic loop, together with the manufacturer's Type TLPJ molded oil-resistant rubber connectors represent an entirely new combination, interchangeable with AAR types now in service. *Pyle-National Company, 1334 N. Kostner ave., Chicago 51* •

Conveyor Belt Speeds Crowds

A moving sidewalk capable of handling 15,000 passengers an hour has been installed at the Sam Houston Coliseum, Houston, Tex. The belt was developed jointly by Link-Belt Company, B. F. Goodrich (Industrial Products Division), and Otis Elevator Company, and is the first such Link-Belt installation. It is 82 in. wide, enough to carry three persons abreast. Installed on a seven-degree grade, the 114-ft beltwalk moves at a speed of 132 ft per minute— slightly faster than an escalator. *Link-Belt Company, 307 N. Michigan ave., Chicago 1* •



Cup Dispenser

A cup dispenser with no moving parts, said to be dust proof, has been designed specifically for locomotive and heavy duty service. Made with a heavy-gage steel barrel, and featuring a bottom dust seal dispensing unit, the dispenser can be spot welded or mounted by screws. Any cone or flat bottom Dixie cup, ranging from 3½ to 5 oz, may be used in the new dispenser. *Transportation Sales Department, Dixie Cup Company, Easton, Pa* •

Single Aspect Marker Light

A single aspect marker light designed for permanent mounting in the end sheets of cars has been announced. Lamp replacements can be quickly and easily made from either inside or outside a car. As a maintenance feature, the outside cover is removable for relamping and to permit cleaning

(Continued on page 116)

The famous *General* became a prize of war during the Civil War when she was captured at Big Shanty, Ga. However, after a hair-raising 90-mile chase, she was recaptured by two intrepid railroad men with the assistance of Confederates. She remained in special service well into the 1890's

Then...and now...serviced with Esso Railroad Products

Valuable years of experience in research and development, along with continual testing on the road and in the lab, stand back of the outstanding performance of famous Esso Railroad Products.

Diesel Fuels
ESSO ANDOK Lubricants—versatile greases
ARACAR—journal box oils
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COBLAX—traction motor gear lube
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SOLVESSO—Aromatic solvent
ESSO Weed Killer
ESSO Hotbox Compound
AROX—pneumatic tool lube
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SOLD IN: Maine, N. H., Vt., Mass., R. I., Conn., N. Y., N. J., Pa., Del., Md., D. C., Va., W. Va., N. C., S. C., Tenn., Ark., La.

ESSO STANDARD OIL COMPANY — Boston, Mass. — Pelham, N. Y. — Elizabeth, N. J. — Bala-Cynwyd, Pa. — Baltimore, Md. — Richmond, Va. — Charlotte, N. C. — Columbia, S. C. — Memphis, Tenn. — New Orleans, La.

NOTHING could be FINER

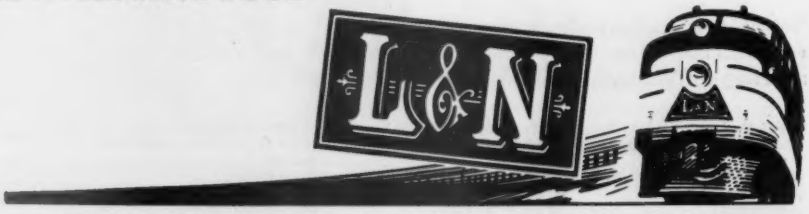
THERE'S A KNACK TO GOOD COOKIN'. . .

. . . from the preparation of L&N's famous country ham and red gravy breakfasts to the delicious Gulf Coast Sea Food Platters. These and other chef's specialties are the delight of gourmets who go L&N. And . . .

THERE'S A KNACK TO FINE SERVICE . . .

. . . whether it be aboard L&N's club lounge for snacks . . . the regular streamlined dining cars . . . or L&N's new deluxe reserved-seat diners. The fine food served on the L&N is typical of the special service and attention which "The Old Reliable" gives its passengers . . . an art mastered through more than a century of progress.

Enjoy your trip to the fullest . . . fine trains . . . fast schedules . . . modern Pullmans . . . reclining-seat coaches . . . lounge cars . . . and FINE FOOD.



LOUISVILLE AND NASHVILLE RAILROAD

Keep your eye

on

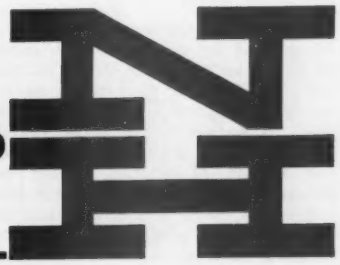
THE NEW HAVEN RAILROAD

You'll see a lot of great things happening. There's a new spirit running from top to bottom in this progressive railroad.

Light-weight, high-speed, low center of gravity trains are scheduled for late 1955. Newly designed fast loading and unloading "piggy-back" flat cars for trailers are being constructed. Station improvements are under way, new fares are being offered, schedules have been improved.

There's movement — a surging force of greater accomplishments on the way. It will pay you, and all America, to keep your eyes on The New Haven.

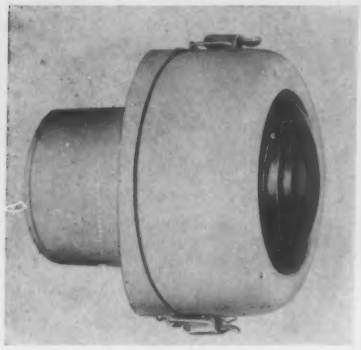
THE NEW HAVEN RAILROAD



More New Products

(Continued from page 112)

of the gasketed lens which is mounted from the inside to give the marker a streamlined and attractive appearance. This outside cover is securely clamped against the waterproof body gasket by

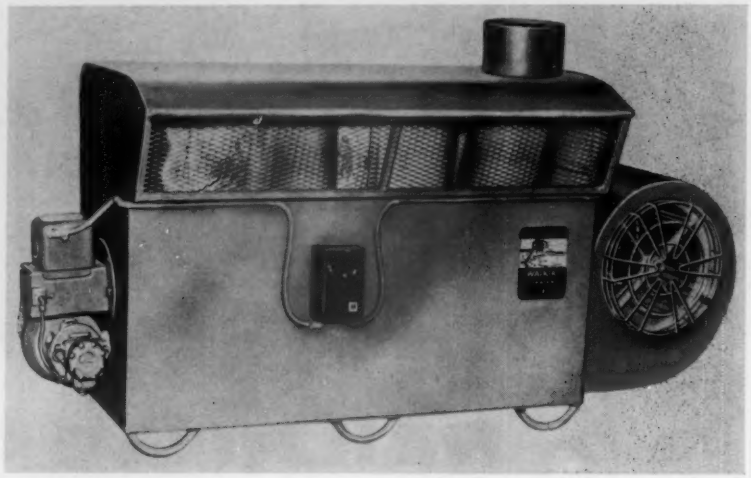


a toggle clamp on each side. A shockproof mounting is provided to asure maximum lamp life. Red, yellow, green or clear stepped lenses are available. *Pyle-National Company, 1334 N. Kostner ave., Chicago 51* •

Stainless Steel Lockers

"Rigidized" stainless steel is now being used for doors and side panels of Guardian parcel lockers. The steel has been treated to have a pattern texture that gives a "dressier" appearance to station locker groupings. At the same time the new finish reduces the amount of external wiping and cleaning needed to keep lockers looking bright. Tests in a midwestern passenger station point to once-a-month cleaning and once-a-week dusting or wiping under most average conditions.

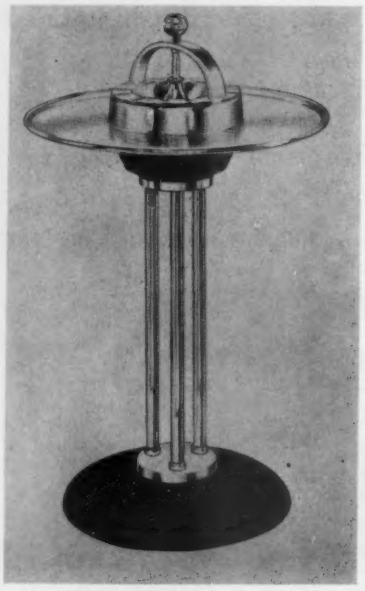
Guardian lockers are constructed almost entirely of stainless steel. They are not rented, but are purchased outright from the manufacturer. *The Flexible Company, Loudonville, Ohio* •



Semi-Portable Space Heater

This unit can be used to heat buildings under construction, loading docks or sheds; or to cure concrete. It heats and circulates as much as 2,500 cu ft of air per min or as little as 900. The Waikiki 4820 has a home type oil burner or may be equipped with a natural gas or bottled gas burner. Its fuel nozzles can be changed to give 80,000 to 200,000 Btu input. A squirrel cage type blower circulates air around the three combustion chambers.

Once started, thermostats with variable settings take over, causing the heater and blower to cycle on and off automatically. The heater is enclosed in a metal cabinet, painted and mounted on legs so it can be picked up and moved about or suspended from the ceiling. Overall length is 48 in.; height, 24 in.; and depth, 36 in. *Vapor Heating Corporation, 6420 West Howard st., Chicago 31* •



Ash Receivers

Climax Smokers are available in several models with or without trays and glass holders, and in a choice of color finishes. All-metal ash receivers put ashes out of sight while sealing in odors. The Climax units are built to prevent tipping, and contain no springs. The steel trays are removable. *Arnolt Corporation, Warsaw, Ind* •

Totally Enclosed Motor

A motor for duties requiring a completely enclosed unit and conforming to the dimensional standards adapted by NEMA has been placed in production. Greater protection is provided by improved types of enclosures, precision register fits, closer tolerances in machining and numerous structural refinements, states the manufacturer.

Designated as U.S. Type J, it can be used where fumes, dusts and moisture are prevalent. Its externally exposed surfaces are of cast iron for corrosion resistance. The frame is ribbed around the entire unit for added strength and rapid heat dissipation. The motor is available in ratings from 1 to 10 hp and may be purchased in a fanless type for lower ratings from 1 to 1½ hp. *U. S. Electrical Motors, Inc., Box 2058, Los Angeles 54* •

23 Flying Red Horse product blending plants across the U. S. can save you time, trouble and money!

Each of the Flying Red Horses on the map above represents a complete Blending Plant—a dependable source of supply for your petroleum needs.

At any of these 23 plants—far more than any other oil company maintains—you can get correct products for your particular operations. Even if you require some specialized product—a product that must be tailor-made to your specifications—these plants can supply it with minimum delay.

This exclusive "round-the-corner" service can benefit you in many ways . . .

1. *Reduced inventory* — you need not stock up excessively since our plants are within easy access. This simplifies inventory management.

2. *Lower transportation costs* — because we have 23 plants, all strategically located, only a *short* haul is necessary to bring our products where they're wanted.

3. *Faster delivery* — there's a plant close enough to you to assure prompt delivery always.

4. *Special requirements* — emergency delivery or special formulation — your request is always handled promptly and efficiently.

5. *Save money on empty containers* — fewer containers to handle and less of a haul to return them saves you time, trouble and money.

Take advantage of this nation-wide network of railroad "service stations" to improve your operations — cut your costs. Get all the facts by writing to one of the addresses below.

SOCONY-VACUUM OIL CO., INC., and Affiliates:
MAGNOLIA PETROLEUM CO., GENERAL PETROLEUM CORP.

RAILROAD DIVISION

26 Broadway, New York 4, N. Y. · 59 East Van Buren Street, Chicago 5, Ill.

Railroad Lubricants

PIN POINTED FOR SERVICE

Youngstown has 28 district sales offices conveniently located throughout the nation to serve you quickly. They are staffed with men who know the steel business thoroughly and are qualified to help you with your steel requirements. You can get quick service whether you write, wire or phone your nearby Youngstown District Sales Office.

QUALITY YOUNGSTOWN SERVICE

DISTRICT SALES OFFICES

Atlanta 1, Ga.
1310 Healey Building
Phone Walnut 5920

Boston 16, Mass.
250 Stuart Street
Phone Liberty 2-5855

Buffalo 2, N. Y.
1508 Liberty Bank Bldg.
Phone Washington 6270

Chicago 2, Illinois
111 W. Washington Street
Phone Franklin 2-5470

Cincinnati 2, Ohio
1302 Carew Tower
Phone Main 1424

Cleveland 13, Ohio
2400 Terminal Tower Bldg.
Phone Main 2605

Columbus 15, Ohio
2850 LeVeque Lincoln Tower
Phone Capitol 4-7211

Dallas 2, Texas
1602 First Nat'l. Bank Bldg.
Phone Randolph 6964

Denver 2, Colorado
814 Continental Oil Bldg.
Phone Main 3-2283

Des Moines 9, Iowa
437 Insurance Exchange Bldg.
Phone 3-5033

Detroit 2, Michigan
926 Fisher Bldg.
Phone Trinity 5-5816

Grand Rapids 2, Michigan
603 Michigan Nat'l. Bank Bldg.
Phone 9-4291

Houston 2, Texas
1350 Esperson Bldg.
Phone Fairfax 1325

Indianapolis 4, Indiana
520 Circle Tower
Phone Melrose 2-3461

Kansas City 6, Mo.
1222 Commerce Bldg.
Phone Victor 5837

Los Angeles 15, Calif.
(Direct communications to Y.S.P. of Calif.)
Phone Prospect 7581

Milwaukee 3, Wisc.
2110 Wisconsin Tower
Phone Marquette 8-5148

Minneapolis 2, Minn.
1050 Baker Bldg.
Phone ATlantic 2970

New Orleans 12, La.
520 Whitney Bldg.
Phone Raymond 0153

New York 36, New York
500 Fifth Avenue
Phone Lackawanna 4-4340

Philadelphia 2, Pa.
1502 Girard Trust Bldg.
Phone Rittenhouse 6-9830

Pittsburgh 22, Pa.
Two Gateway Center
Phone Atlantic 1-2350

St. Louis 3, Mo.
611 Shell Bldg.
Phone Geneva 1223

San Francisco 5, Calif.
55 New Montgomery Street
Phone Garfield 1-6544

Seattle 4, Washington
457 Central Bldg.
Phone Main 6420

Tulsa 3, Oklahoma
1305 Philtower Bldg.
Phone 54-4634

Washington 5, D.C.
327 Bowen Building
Phone Rep. 7-2340

Youngstown 1, Ohio
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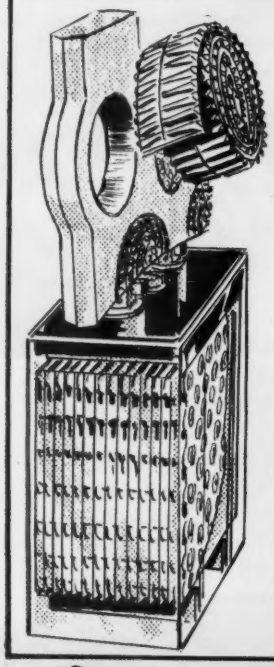

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6,388 passenger cars have been built

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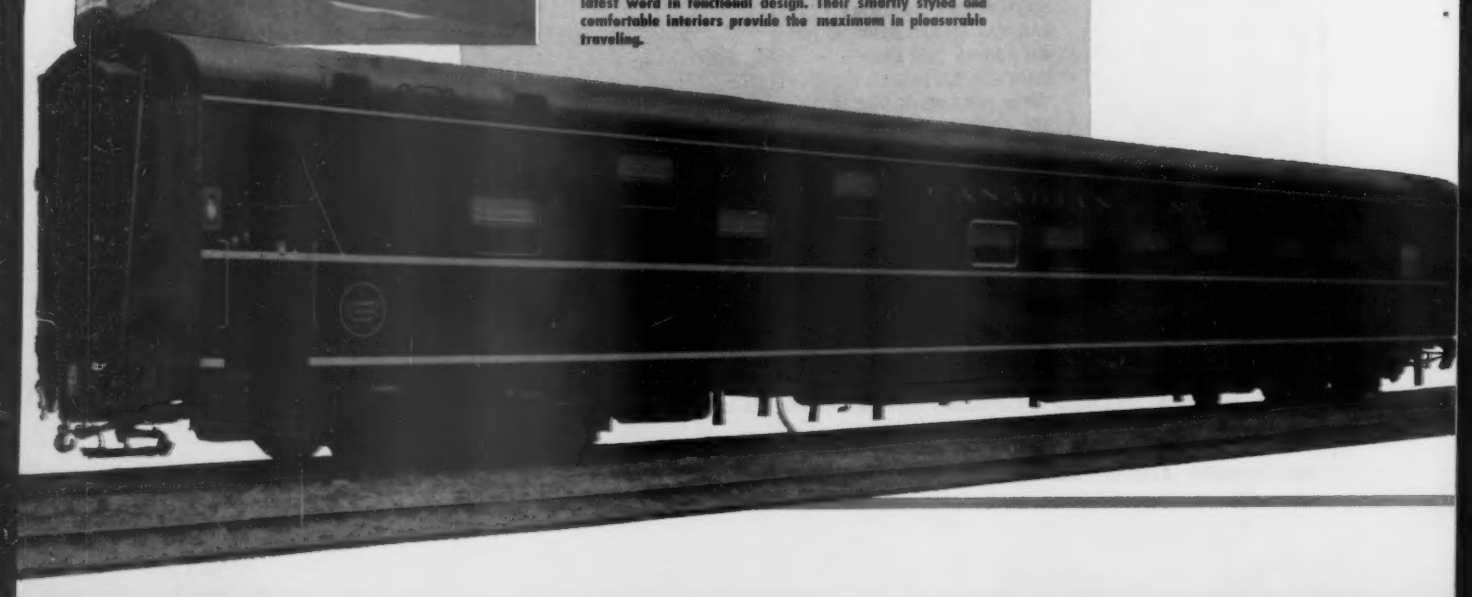

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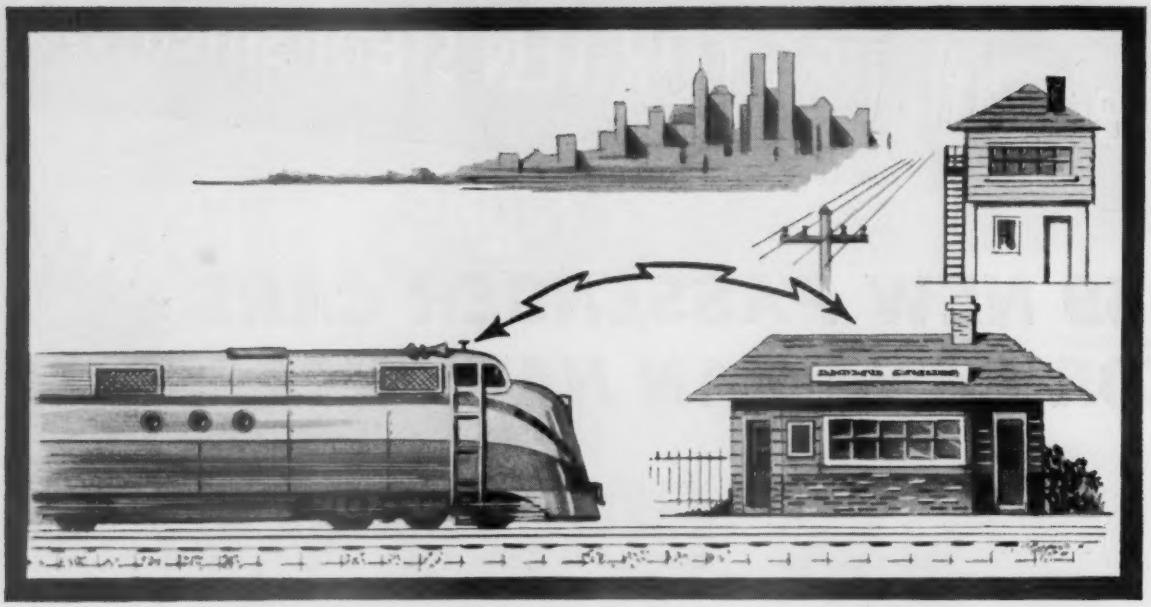

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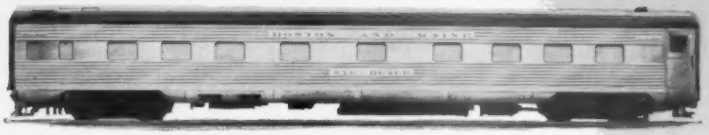

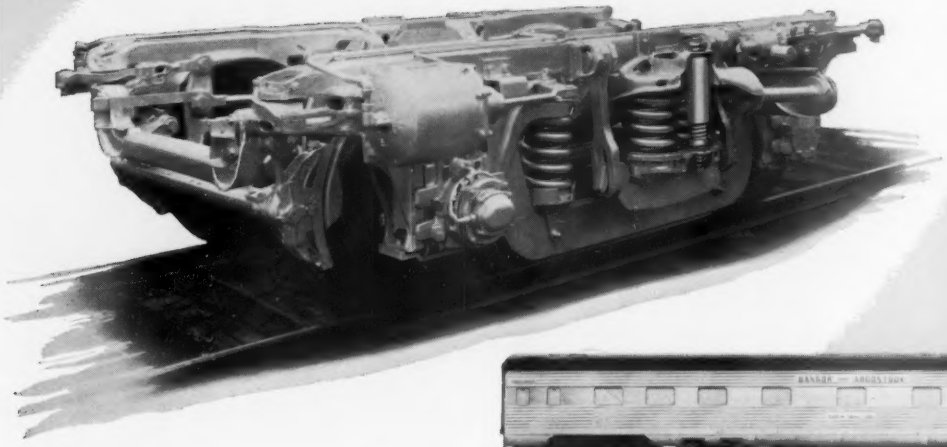

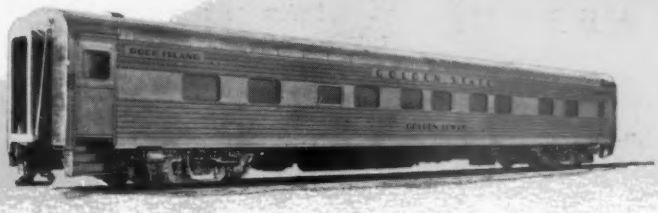

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The Budd-built new full-length dome lounge car sets a new standard in railroad luxury.

119 new Santa Fe cars wired with OKONITE-OKOPRENE

Expanding its famous high-quality service, the Santa Fe is adding 119 new Budd cars to the El Capitan, Chicagoan, Kansas Cityan and the new San Francisco Chief. The coaches, baggage and mail cars, and the full-length dome lounge cars are all wired with Okonite-Okoprene, the service-proved quality car wire.

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Pricing for More Riders

To make their passenger-carrying business profitable, the railroads must:

(1) Shrink the service at "thin" stations and on thin routes, and

(2) Seek to intensify the volume and consistency of traffic on those routes which have a high potential for mass transport of persons.

The biggest help toward the accomplishment of (2) would be a new concept of pricing passenger service. It should be recognized that railroads are no longer the basic carrier of passengers. Their present status in the passenger market is such that they no longer have the traditional moral obligation of the common carrier. In short, in the passenger field at least, the railroads have no longer the obligation to equalize the transportation conditions of places or persons.

No transportation business can exist solely as a stand-by facility. The occasional user should pay more than the steady customer. The lower operating costs resulting from high and consistent volume justify lower prices where that volume exists or can be encouraged.

Under these changed conditions it would appear that the most important step toward building profitable volume and revenues is to establish a system of *differential* pricing which meets all or some of the following objectives.

(1) *Reasonably high rates for stand-by users and stand-by routes.* These could be provided by a high mileage scale. Fares of this kind should be made to apply, for example, to the people who use the railroads only when the planes aren't flying.

(2) *Lower rates for steady customers.* This principle already applies to commuter service—which is unprofitable only because it is peaked, because it is short-haul, and because it uses equipment and terminals inefficiently. In contrast, the same "meal-ticket" plan of pricing ought to build profitable patronage for regular intercity travel.

(3) *Group rates which compete with private automobile or plane.* This kind of rate recognizes that the unit of cost by private transportation is the vehicle, and not the individual. It would serve to diminish, not to eliminate, the spread in cost which occurs beween person-unit fares on the railroads and vehicle-unit costs by private transportation.

(4) *Fares which are lower, in relation to distance, for heavily traveled routes than for "stand-by" routes.* Among other things, this would enable the advertisement of easily remembered fares in round numbers between major points. This principle of pricing is common in bus fares. Although the scheduled air lines adhere generally to a standard rate per mile, they do not serve smaller points at all. Hence, in competition with railroads, they are actually engaging in differential pricing. The increasingly important "non-skeds" base all fares on the principle of differential pricing.

Every one of these modern principles of pricing is being tried out on the American railroads today. But, when the completely changed status of the railroad as a carrier is taken into account, the range of these experiments is too timid and too restrained.

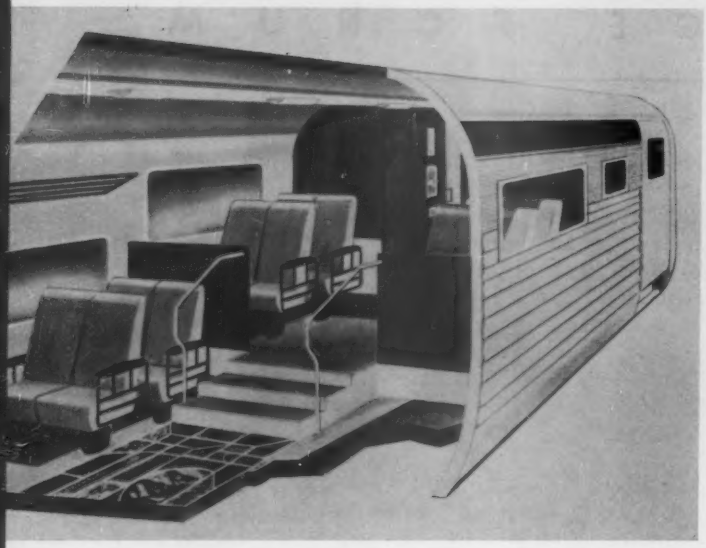
Modern incentive pricing in the passenger business will require a complete reorientation in faremaking—wherein what used to be called "abnormal" rates will move most of the traffic and so-called "standard" charges will exist largely as a ceiling. Realistic pricing of this sort will require recognition by the ICC and state regulatory bodies that times have changed.

The new lightweight trains—the "hottest" topic in the business today—are being purchased largely to cut first and operating costs. While they likely will make possible faster overall speeds than existing equipment, this is not a primary goal. The railroads probably will be satisfied if the new lightweights match the comfort of modern equipment already in service.

Thus, the job of merchandising the new trains will differ markedly from that which found success with the "streamliners" of the Thirties. The streamliners provided levels of comfort, of speed and of appearance which at the time were revolutionary; and traffic responded.

The new lightweights, in contrast, while they will be dramatic in appearance, will produce largely savings in costs. If these savings are to be converted into cash, they will have to be used in part to finance experiments in incentive fares which will fill both the new trains and the trains of substantially equal comfort now on the rails.

Up-to-date pricing and modern merchandising must do the big job. The passenger business can be a big business and a growing business, if railroads will concentrate on locations where traffic exists—and give up providing service where there is no potential. That is how the air lines are getting rich.



EVOLUTION . . . or . . . REVOLUTION

WHICH WILL IT BE FOR . . .

The Passenger Train of the Future

New lightweight train design is a matter of increasing interest among railroad officers. Just what role can such equipment play in the face of today's air and highway competition? As the new types of cars are put in service, will their principal advantage be to build traffic through better riding quality and faster schedules? Or will their principal advantage be to cut costs?

If reduced cost is the major goal, where will most of the saving occur—in initial cost, or in operating cost? Certain phases of the latter—terminal and crew costs, for example—apparently will be virtually unchanged. Other aspects, like fuel and horsepower requirements, will be reduced less than many people have expected. Repair and cleaning costs can only be estimated.

In spite of these factors, however, an extensive study by the C&O in 1949 indicated that substitution of a "Train X" for a 14-car conventional train would save $1.90 per mile, or about half the out-of-pocket operating cost at that time.

In looking for savings elsewhere, it appears doubtful that weight reduction alone will justify lightweight equipment. First cost also must be reduced. But which of two ways is better to attain lower weight and lower cost?

Should an evolutionary approach be applied, using the latest airplane design technique and other advanced engineering principles on present full-length cars (about 85 ft long)? That's what the Pennsylvania is doing with its tubular design.

Or should the approach be a revolutionary one, as exemplified by Train X, Talgo and others? In these, the cars are about half the length of present equipment and ride on two-wheel rather than four-wheel trucks.

Here is one estimate of comparisons for some of the newer designs, stated in cost per seat, weight per seat and weight per foot of length:

	*Cost per seat**	*Weight, lb per seat**	*Lb per ft of length**
Conventional (locomotive + 7 coaches)	$3,000	2,950	1,740
85-ft Tubular	2,629-2,694	1,832	1,412
U. S. Talgo	2,248-3,025	1,457-1,785	921
Train X	3,075-3,450	1,317	969
General Motors	1,250	1,135	1,008

*Including locomotive

This is, of course, but one set of estimates and does not include comparison between all features of the new designs. Overall height, for example, varies from 10 ft 9 in. on the General Motors train to 11 ft 9 in. on the tubular cars. Talgo and Train X fall in between, at 10 ft 10½ in. and 11 ft, respectively. Conventional equipment is 13½ ft high.

The center of gravity ranges from less than 39 in. above rail in the tubular cars to about 58 in. on conventional equipment, again with other designs in between.

These are only a few of the considerations that must be kept in mind in looking ahead to tomorrow's passenger trains. To get some ideas about other factors and to formulate a broad and up-to-date background on the entire subject of lightweight trains, *Railway Age* interviewed Hermann Bleibtreu, a consulting engineer who in recent years has been active in research and design work on lightweight trains. Mr. Bleibtreu has a wide acquaintance with what is being done in Europe and has served as consultant both to railroads and to car and locomotive builders in this country. Here's the story.

WEIGHT CAN BE CUT

Q. Mr. Bleibtreu, how much can lightweight design really reduce initial weight?

A. I'd say about 35% to 40% for full-length lightweight cars, much more for short-car Talgo-type trains.

•

Q. Will a cut in weight produce equally large fuel savings?

A. No, not exactly. At high speed the fuel savings would be less than half the reduction in weight. That's because, at higher speeds, wind resistance increases approximately as the square of the speed.

•

Q. In other words, if weight is reduced 40%, fuel consumption would be cut about 20%?

A. That is correct except for high speed. Beyond 30 mph fuel savings decrease rapidly because of the increasing air resistance.

•

Q. What about below 30 mph?

A. At low speed, or on runs with frequent stops or heavy grades, fuel savings, percentagewise, may approach but never reach the weight reduction.

•

Q. Where such cars have actually been built, can you give us some comparative weights per seat for long and short cars?

A. Let's make that comparison in pounds per foot of running length. Otherwise, the seat spacing, dining and lounge space, and things like that make it difficult to compare different trains on the same basis. The original Talgo train, with 20-ft cars, weighs 312 lb per ft. A German train I know of, also with single-axle trucks but 40-ft cars, weighs 420 lb per ft. If the weight of the motive power is included, these weights become 660 and 710 lb per ft, respectively.

•

Q. Generally speaking, then, it appears the longer the car, the more it weighs per ft?

A. Generally speaking that is true, and it is in accordance with theory.

•

Q. None of the cars you mention, Mr. Bleibtreu, is the full 85-ft length common in this country. How much will one this long weigh?

A. Modern cars 85 to 87 ft long have been built in Europe which weigh between 800 and 950 lb per ft. They are of all-steel construction and have a buffing strength between 200 and 250 tons. Air-conditioning would add about 100 lb more per ft. Conventional U. S. coaches, of course, weigh a lot more—around 1,400 lb per ft. And they have buffing strength of 400 tons.

•

Q. You mention all-steel construction for the 85-ft car. Wouldn't it weigh less if made of aluminum?

A. Yes. None has ever been built, but I would guess the savings would be less than 15%. With short cars, however, the weight saving would be more than 25% over steel.

Q. In view of that, what car length would you say would result in minimum weight per foot and weight per seat?

A. Between 40 and 50 ft in length, other factors such as profile and buffing strength being the same.

•

Q. Those are pretty short cars. Wouldn't that create a problem with all the parts you'd have to keep on hand?

A. No, I wouldn't say so. In fact, the number of automatic couplers and axles can actually be reduced.

•

Q. Then what about operational flexibility? Would these shorter cars restrict what a railroad can do?

A. No, flexibility should be about the same as with full-length equipment. Three or four short cars can join together to form a single operating unit with automatic couplers at both ends. This combined unit could be cut in or out of a train with about the same loss of seats as when a single full-length car is dropped.

A LOOK AT AXLES

Q. How has the single axle suspension of the Talgo worked out?

A. The original Talgo train had a "wishbone" arrangement. Curve resistance on this type of axle guiding limits car length to 25 or possibly 30 ft at the most. Also, the train can run in only one direction.

•

Q. Aren't there now better ways of doing this?

A. Yes, by radially guided axles. They are used on that German motor train described a few months ago in *Railway Age* (March 15, 1954).

•

Q. Just what do you mean when you say "radially guided"?

A. The axle is guided so that it is always on the exact radius of the curve (pointing toward the center). This means it bisects the angle between the cars. On straight track this method of guiding also keeps the axle absolutely perpendicular to the rail.

•

Q. Are there still other ways to use single axle suspension, besides the "wishbone" or radially guided types?

A. Yes, you can do so by a single rigid axle near each end of the car. This will give a weight comparable to the single-axle radially guided truck. Where this design has been tried in the past, however, it hasn't worked too well.

•

Q. Has it actually been tried?

A. Yes, and with a few disadvantages. The rigid wheel base increases curve resistance and riding qualities have not been good above 50 mph.

•

Q. How about a single-axle radial truck? Would it weigh much less than a lightweight two-axle swivel truck?

A. On the German trains referred to, swivel truck complete weighed 6,600 lb. This compares with 4,500 lb. for the single axle truck.

•

Q. Has the single axle suspension of any current European design met the requirements of rugged day in, day out operation? How have they stood up?

A. Those single axle arrangements of the original Talgo are said to be satisfactory. Of course, they are not of much practical interest any more since they are restricted to extremely short cars and one-way operation.

•

Q. How about single-axle trucks of other designs? Have they worked?

A. The single axles on that German motor train have given considerable trouble from time to time. In each case, however, the cause has been found and right now the outlook is promising.

The "bugs" that have shown up are what you might normally expect when attempting a radical departure in design.

"CRASHWORTHY" DESIGN NEEDED

Q. Earlier you spoke of buffing strength. Do these European cars you mentioned have the 400-ton buffing strength that our cars have?

A. No, theirs is less

•

Q. Do you think this amount of buffing strength could be built into lightweight equipment?

A. It could, but it would be at some sacrifice in weight reduction. To increase buffing strength on the modern European cars from 200 to 400 tons would increase the total weight about 7%.

•

Q. Would you recommend this?

A. No. Safety comes ahead of weight reduction, of course, but the 400-ton buffing strength required by the AAR isn't necessary; it is doubtful if it is even desirable.

•

Q. How do you mean?

A. I think our concept of buffing strength must be revised. In place of our present rigid cars we must design "crashworthy" cars.

•

Q. How would you make a car more "crashworthy"?

A. First, get rid of the center sill. It can do more harm than good. In a wreck its dagger-like action can pierce adjoining cars.

•

Q. Just what kind of a design would you use in its place?

A. A tubular body structure of high columnar strength would be my suggestion. That way, sides and roof participate more fully in resisting collision forces. Self-sacrificing members at the end of each car can absorb impact energy by plastic deformation or shearing. The shock is dissipated before it reaches people in the revenue spaces.

•

Q. Many of today's lightweight European designs are for motor trains. Is there something about this equipment that lends itself better to motor-train operation than to locomotive-hauled operations?

A. No, the design principles are equally applicable in either case.

•

Q. Why, then, are so many of the new European designs used in motor trains?

A. There is a very definite trend in Europe to the motor train. They like them because they can give more frequent service with several short motor trains than with one long locomotive train.

HOW ABOUT OPERATING COSTS?

Q. Isn't this a good deal more costly?

A. Not at all. A recent study of a representative 300-mile run showed the total out-of-pocket cost of running three motor trains of three full-length cars each is only about 15% greater than of running one locomotive-powered train of nine cars.

•

Q. It would seem then that the increased potential in business would justify this added expense?

A. I think that's right. The increased frequency of operation should certainly increase the passenger load enough to justify this increased cost. It would only take about 15 to 20 more passengers divided among the three motor trains to bring in enough added revenue to cover the increased expense.

•

Q. Do you feel that the main advantage of the newer type design, whether used in a motor train or a locomotive train, is the reduction in operating costs it makes possible?

A. No, I wouldn't call it the main advantage. Lower initial cost, faster schedules and improved riding are also very important.

HOW THEY WILL RIDE

Q. Do you think the new lightweight trains in this country will ride better than what we have now?

A. Maybe not at first; but you always have many things to iron out in any new design. Such features as pendulum suspension, radially guided axles and pivoted journal boxes offer the hope at least that eventually these trains will ride better.

•

Q. You didn't mention lower center of gravity. Won't that be an important advantage?

A. Not particularly. A lower center of gravity will usually increase the safe speed at which a curve can be taken. But it won't increase the comfort speed and that is the speed at which curves are customarily taken.

•

Q. Isn't there some way trains can go around curves faster without discomfort?

A. Surely, with pendulum suspension. That tilts the car to counteract centrifugal force—in other words a passenger tilts like a bicycle rider takes a curve.

•

Q. For what type of service would you say these new type trains are best fitted?

A. Runs of about two to three hundred miles in length, where a train averaging 75 mph can complete with the airplane. They might also be useful in runs up to a thousand miles, runs that can be made over night, if they ride well enough to give the passengers a good night's sleep. Some modification of these new designs may also be suitable for commuter service.

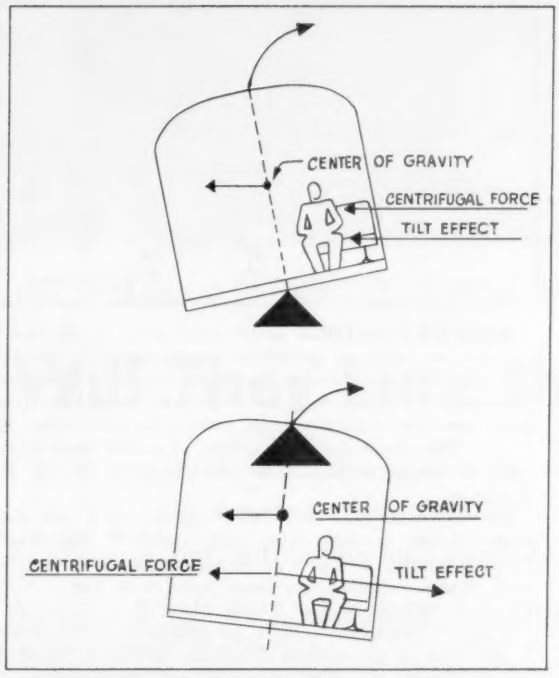
•

Q. How do you feel about motor trains vs. locomotive trains in this country?

A. Railroads here have generally preferred locomotive trains. That probably won't change. However, the motor train does possess many advantages that are worth exploring.

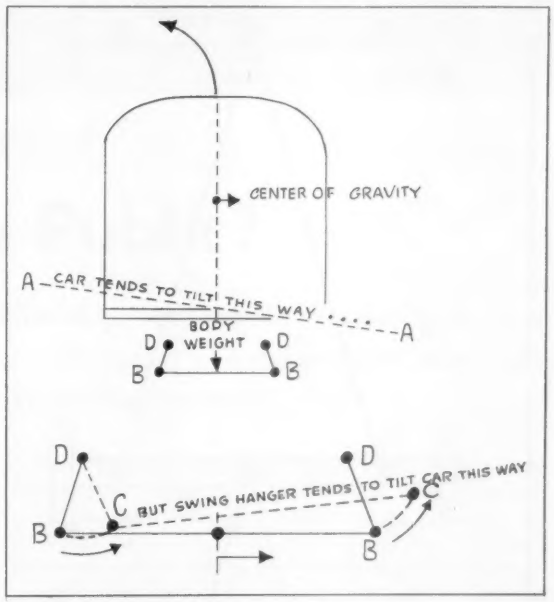
TERMS WORTH KNOWING ABOUT LIGHTWEIGHT TRAINS

As new types of lightweight trains are discussed, and various design proposals analyzed, there will appear certain terms with which many railroad men will not have had previous contact. Some of those that may be expected to appear often are explained herewith.



PENDULUM SUSPENSION increases comfort on curves, as these two simplified sketches show. When a car is supported below its center of gravity (upper sketch), as with present equipment, the car leans the passenger away from the curve, adding to the effect of the centrifugal force exerts on him. That's because the centrifugal force (the force that tends to overturn the car) acts through the center of gravity. For this same reason, a car supported above its center of gravity (which is what pendulum suspension means) leans the passenger into the curve, counteracting centrifugal force.

Pendulum suspension will not increase the safe speed at which a curve can be taken (the speed just below that at which the car will tip over). Yet it would permit present speed limits on most curves to be raised because these speeds are based on how fast you can take a curve with comfort—not how fast with safety. Thus a curve may be safe to round at 80 mph but will have a speed limit of 60 mph because anything above this would be uncomfortable for the passengers. Pendulum suspension would raise this "comfort" speed to 70 or 75 mph.

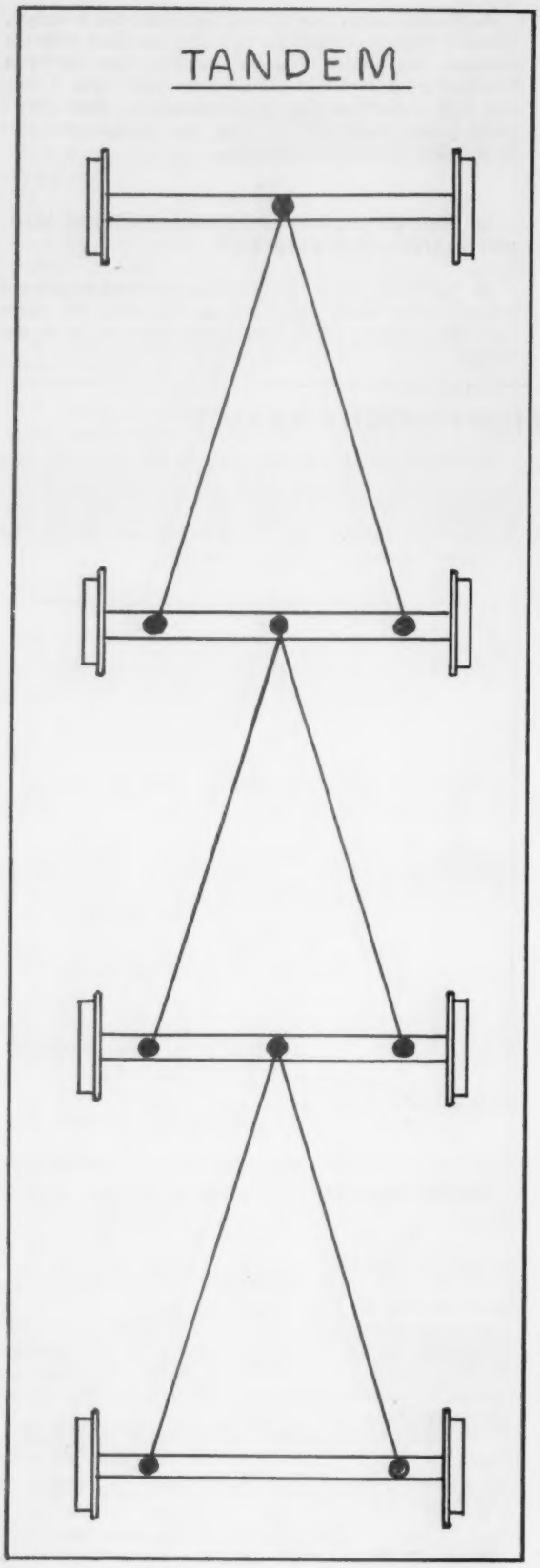


SWING HANGERS give a partial pendulum effect, as shown here. When the car rounds a curve to the left, it tends to tilt. The floor assumes the angle shown by the broken line AA.

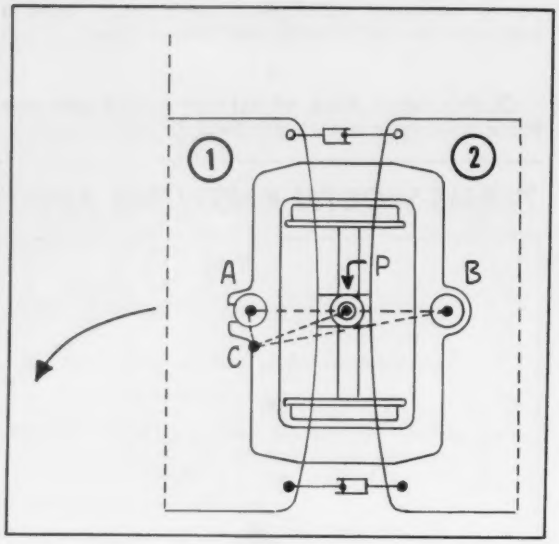
At the same time this occurs, a second effect takes place through the swing hanger action. The weight of the car on the truck bolster (shown schematically by line BB) causes this member to swing outward in the same direction as the center of gravity of the car. It thus tries to assume position CC, and in doing so partially counters the tendency of the car body to lean to AA.

All swing hangers attach to the truck side frame at points D. They are classified as inside or outside, depending on whether points D and B are inside or outside the side frame.

More on next page ► ► ► ► ► ► ►



"WISHBONE" GUIDING (left) was used on original Talgo. In this arrangement, the frame of one unit rests over the axle of the unit ahead. As each unit enters a curve it helps lead the wheels of the following unit into the curve. The system is now chiefly of academic interest as it has been superseded by the radially guided axle. The wishbone principle could be used only on very short cars (about 25 ft long) and such cars could run in only one direction.



RADIALLY GUIDED single axles point to the curve center, i. e., they are guided to assume a radial position just as any two-axle swivel truck does automatically. This radial position means that the single axle must bisect the angle that two adjoining cars form with each other in a curve. The above sketch shows one of several ways to do this (on which a patent has been applied for by H. Bleibtreu).

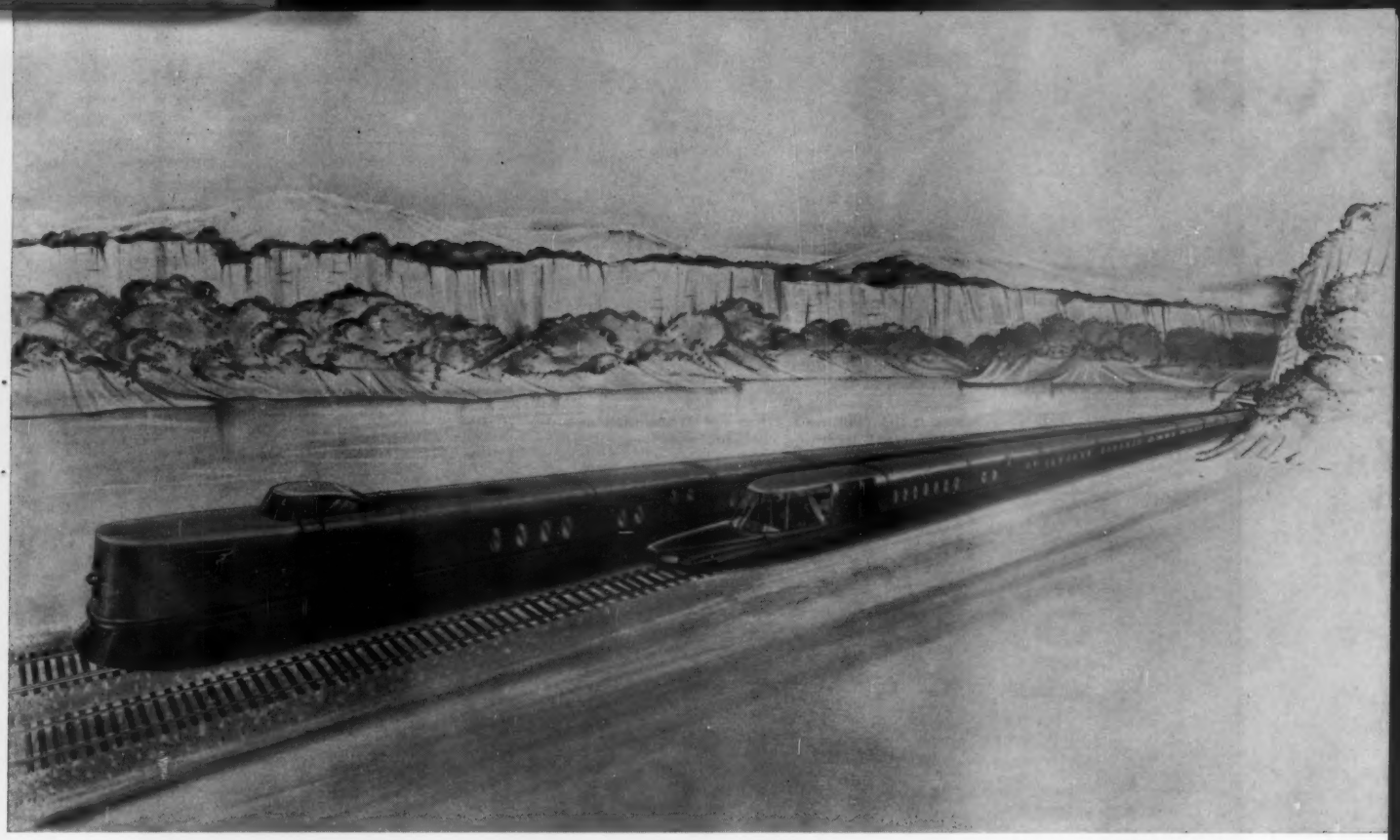
The adjoining cars are pinned together at P and can move relative to each other only about P. The truck frame is pinned to Car 1 at A and to Car 2 at B. The truck frame therefore can move relative to Car 1 only about A—relative to Car 2 only about B.

If Car 1 starts into a curve, as indicated by the arrow, it will tend to pivot about P relative to Car 2. Point A will then move to C. This movement will be in an arc of which P is the center. It can be seen from the sketch, and it can be proved by plane geometry, that angle APC is equal in degrees to the angle between the facing ends of the two cars.

At the same time this movement is occurring about P, the truck is also pivoting about B. This causes the truck to form angle ABC with Car 2. By plane geometry it can be shown that this angle is half the angle APC.

If the angle between the truck frame and Car 2 is equal to half the angle between Car 1 and Car 2, the other half of the total angle must be between the truck frame and Car 1. Therefore, the truck frame has been made to bisect the angle between the facing ends of the two cars. Further, if the angle between the cars is bisected by the lateral axis of the truck, this axis must lie along the radius of the curve (pointing to its center). As the center line of the axle lies along this truck lateral axis, it must also be radial to the curve.

This principle of guiding is also advantageous on straight track. In this case, the axle is kept perpendicular to the track at all times.



THEY WILL LOOK DIFFERENT. They will be **different**. But . . .

Will They Lure the Public?

Early streamliners were top showmanship; renewed the travel-by-train urge in America—Today's "idea" trains are designed for a somewhat different role, but, with astute merchandising, may produce the same "lift"

Another "new look" in American passenger train style and basic design is on the way.

Although there is little to see as yet, the current crop of "idea" trains is already catching the public's fancy. The diversity of design ideas—ranging from the "Hi-Levels" through the "Tubular," the "Talgo," and Train "X," to the yet-to-be-revealed General Motors design—adds immeasurably to public interest. The impact of these new railroading ideas upon the public is, in itself, a most beneficial thing for the industry.

But what can railroad men expect from these forthcoming trains? Can they equal the tremendous travel-by-train urge that the streamliners built up 20 years ago? Almost all of the new trains are radical in structural design. On the drawing boards, their appearance is radical, too. Will they come to signify to passengers an improvement in what a travel dollar buys as forceful as the streamliners symbolized in the Thirties?

They can. But they will do so in a manner somewhat different from their revolutionary predecessors. And they will require well-planned and intensive merchandising by the carriers to captivate the public as the streamliners did.

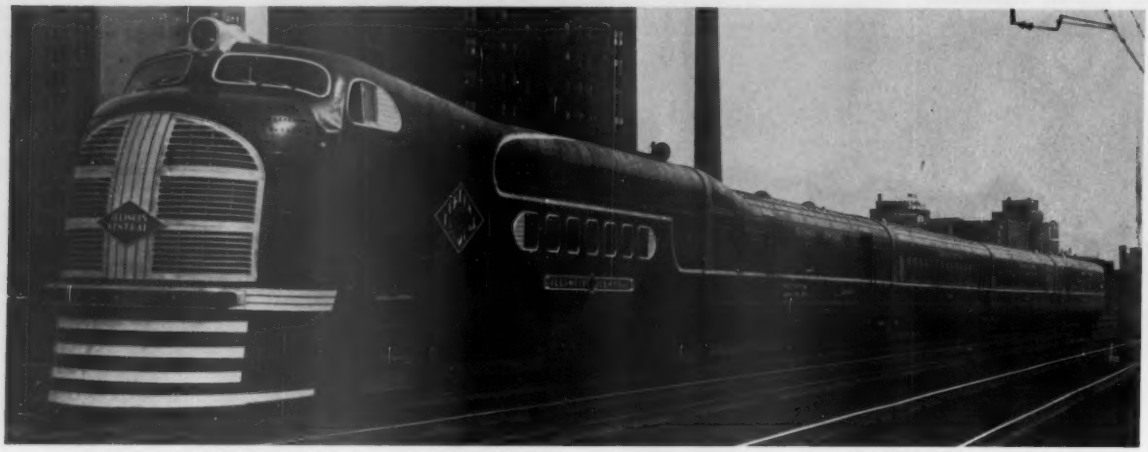
The reasons lie beyond the sphere of train design and construction. Partly they lie in the solid accomplishments of the passenger equipment already on the rails. For the most part the reasons lie in vastly altered travel habits—habits which have pushed *every* form of *public* passenger transportation by land into a bitter struggle for survival.

It Was Different in the 30's

Although American travel habits were beginning to undergo profound changes in the middle Thirties, the railroad passenger train was still the backbone of intercity travel. The paved highway was already familiar, but the present comforts of highway travel—roomy autos with big luggage space, de luxe family motels, fine restaurants, etc.—were still pretty much in the future. An intrepid traveler who demanded speed could step into a breezy 125-mph Ford tri-motor or one of its counterparts, but in the face of air line safety records which were none-too-good.

A psychological moment was at hand. In the quiet of those depression years, the little "Pioneer Zephyr," the

TRAVEL IN THE THIRTIES was utilitarian and often far from pleasant. In the mind of the public, railroads were slipping behind their competition.



A GLAMOROUS PACKAGE—the diesel streamliner—answered the challenge with startling innovations. Question: Can today's "idea" trains do it again?

"City of Salina," and the "Green Diamond" emerged as signs that, as passenger carriers, the railroads were far from "washed up." They were ready to stage a comeback with spectacular equipment and performances.

Consider the many simultaneous improvements these and other early streamliners offered the rail travelers by 1935:

- Mile-a-minute schedules almost as a matter of course.
- Air conditioning (then something new) without exception.
- Sealed picture windows that shut out all road dust and dirt.
- Bright new pastel interiors. Dining and lounge car luxuries never before known to land travelers.
- Reclining seats for coach passengers, opening a new era for long distance travel at low cost.
- New sleeping car arrangements—including the roomette and connecting double bedrooms—which won immediate public preference.
- A wholly new form of motive power—the diesel-electric—offering smooth, sootless power in a glamorous, aerodynamically styled package.
- Attractive exteriors for passenger cars—stainless steel, aluminum or brightly colored two-tone paint schemes providing new "identity" for each railroad.

In the light of general travel conditions of that era, the streamliners had so much to offer they almost sold themselves to the public. Railroads came to bask in the light of new public confidence.

Competition Has Matured

But what about today—and tomorrow?

The situation now is different. The country is enjoying widespread prosperity. Almost every family has a car; many have two. The newest models, built with almost too much horsepower, offer accommodations for long distance travel by five or six persons in complete, even air-conditioned, comfort. Swank motels with swimming pools, tennis courts and other recreation facilities beckon to motorists. The whole nation seems to have turned to living along its well-marked highways.

Air lines, too, have made great advances. Their speed is almost unmatchable anywhere. Their safety record is slowly coming closer to that of the railroads. And they have established an entirely new concept of travel speed.

Except for the air lines—with their unquestioned advantage of speed and their increasing trend toward luxury—all *public* passenger transportation has shriveled under the onslaught of the ubiquitous private automobile. The local transit industry's back is against the wall. The intercity bus industry—which now pins its hopes on new two-level luxury coaches—appears to be shrinking.

Private travel by auto is a door-to-door, rather than station-to-station, service. That's an advantage no form

of public transportation can fully overcome. And it is increasingly difficult for any form of public transportation (including air lines) to compete with the personal convenience of the automobile. Fewer riders must, of economic necessity, mean fewer runs. Each time that happens, the automobile's advantage leaps ahead again.

But Opportunities Are Greater

There is another side to the story. The market for travel today is by far the greatest in history *per capita*. There will be room for profits in the passenger business. The railroads might win back much greater patronage than they enjoy today.

But in terms of the "idea" trains which will soon be coming out of the builders' plants, the current competitive situation means that the approach of the Thirties—in which the new trains literally sold themselves—will not do the job again. Not only has the competition vastly grown, but from the patron's standpoint, there is nowhere near the room for improvement in railroad service itself. It will be difficult, indeed, to improve upon the luxuries of a modern dome streamliner with any kind of rail vehicle.

Today's "idea" trains must fill their role in a different manner. They must produce acceptable transportation by streamliner standards at lower cost. They must cost less to begin with; less to maintain; less to operate. They must make it possible to perform more service per day and thus earn more income per day. They must be able to operate profitably under sharply reduced fares. And they must be employed to explore entirely new ways of attracting passengers to rail travel—such as carrying the family auto, too, for example.

There will be some very fine selling points built into the new "idea" trains. Improved riding is one expectation. And certainly the "no hands on the wheel" sightseeing offered by new glass-topped equipment exerts a strong appeal. Travelers may even cash in on the cost-saving features of the proposed trains. Lower fares remain as one of the strongest incentives for luring traffic.

Look at the Whole Service

But aside from these considerations, the design advantages of the forthcoming trains will accrue more directly to the carriers than to the passengers. This means that far more intense merchandising will be needed to "sell" travel on the new trains than was needed to "sell" streamliner travel 20 years ago. Lower fares, if they prove possible, will be a major tool. But any merchandising effort must also consider factors beyond the train itself, factors which so often build a psychological barrier against rail travel.

Convenience, comfort and costs are the major considerations of the average traveler. The streamliner has established very acceptable standards of comfort and the new "idea" trains may improve upon them. Because these forthcoming trains are being designed to cut costs they are bound to broaden the railroad passenger market if savings are reflected in fares. Convenience hinges on schedules and services—both aboard the train and in stations. If the ends of the journey can be made as simple and pleasant as the trip itself, rail travel may stage another spectacular comeback.

Benchmarks and Yardsticks

For a product as exposed to public view as advertising is—it is strange that this product should be so frequently misunderstood. Many "intellectuals," for instance, regard all advertising with undiscriminating contempt, as pure deception. But these same intellectuals would not make the mistake of despising all books because many of them are pernicious. They should be able to detect the difference between good and bad advertising.

Wherein lies the difference between praiseworthy advertising and the other kind? In your reporter's opinion, advertising is economically useful and ethically sound when it conveys information which is helpful to the reader as well as to the advertiser. It becomes, at least, questionable, however, when it attracts the reader to a good product for the wrong reasons (i.e., if it induces him to purchase a good soap, not for purposes of cleanliness, but by leading him to believe that the product makes the user irresistible to the opposite sex). When adverising appeals to low motives in order to sell a poor product or to injure a good one, then it is morally and ethically indefensible.

It is the (possibly prejudiced) belief of your reporter that very little advertising in the industry press is subject to criticism as being contrary to sound ethics and economics. People do not read the industry press for amusement, but for information of professional importance—and these readers are experts in the use of the advertised products. Able advertisers are aware of this fact, and usually discipline themselves accordingly.

The highly developed industry press of America is widely recognized as, probably, the principal factor of this country's economic leadership. And it is advertising that makes such an industry press possible.

Alert advertisers are constantly cudgeling their brains for ideas which will interest their audiences. In this issue there are many advertisements which give rich evidence of the desire to impart useful information in an interesting manner. For instance, one of them is 12 pages long. It does not seek directly to sell a product—but gives the considered view of a great manufacturing company on the future of the passenger business. In other words, this advertisement strikingly parallels the editorial message of this issue.

As editors, we could almost have made such an advertisement an editorial article (excepting that our space budget wouldn't have allowed so many pages!). Again—while, as editors, we are proud of the editorial pages in this issue—we freely admit that the advertisers are running us a real race in the interest and value of the information they are imparting. We welcome their competition, and believe our readers do too. J. G. L.

TOP EXECUTIVES of major passenger-carrying roads agree that automobiles and airplanes won't put an end to the passenger business anytime soon.

WHAT'S AHEAD FOR THE PASSENGER BUSINESS?—I

- Are the railroads actually capable of competing for passenger business with automobiles and airplanes in today's transportation market?
- Should railroads expect to make a profit on passenger business — or write it off as prestige advertising, shipper contact, or something else?
- In short, what should a railroad really expect to get from its passenger operations?

Here's What Top Management Thinks . . .

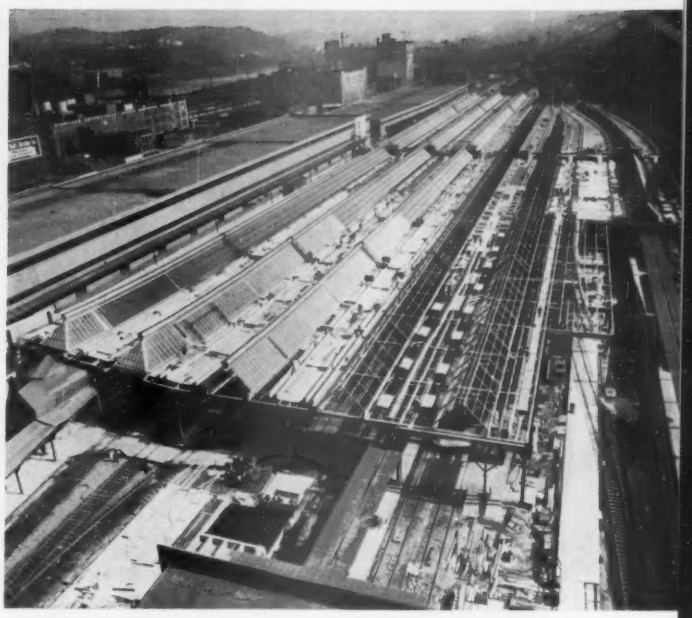
Railroad executives recognize that today's passenger service faces serious problems; but they look beyond them to discern a hopeful future

These questions, aimed at searching out management's thinking on the passenger business, have turned up pretty convincing evidence of one thing: Executives today are confident about the future of their passenger service. They believe there will continue to be a definite market for this type of transportation, and that with proper fares, modern equipment and fast, convenient schedules, the railroads can operate passenger service successfully. There

There is probably no business endeavor in the country today with more problems, either in size or variety, than those facing railroad passenger service. Hoop-skirt regulation, competition and high costs have helped create conditions where this phase of railroad operation is seldom a joy and too rarely a solid profit.

It would not be surprising to find this situation reflecting badly on the whole of railroad service. It colors public attitudes; weakens the morale of valued employees; and some shippers complain they are subsidizing quicksand.

Railway Age happens to believe that a lot of *good* can be said about railroad passenger service. In the hope of dispelling some of the undercurrent of concern, we asked several railroad presidents, representing all sections of the country, to give us their views on the future of the passenger business. Their replies are embodied in this article. Far from defeatism, these men offer refreshing hope for all whose interests and work lie in the passenger service.



STATION MODERNIZATION, like this Pennsylvania job at Pittsburgh, is evidence of management's faith in the future of passenger service.

seems to be little disagreement on these points; and it augurs well for hard-pressed passenger officers who have been fighting one of the nation's toughest competitive battles.

Just what railroad passenger service will shake down to is still an open question. Recent letters to *Railway Age* from a cross-section of railroad presidents have turned up these signs, enough perhaps to spot the trend—

- Railroads can most effectively compete with automobiles and airplanes at what might be called "intermediate" distances—probably between 100 and 600 miles. Below that range automobiles are too flexible, and above it air lines have an edge with their speed.
- Passenger-train mileage is in for a pruning as roads move to abandon deficit operations, and as service is realigned to fit today's competitive situation.
- Some transcontinental roads still consider passenger service essential to the full development of the territories they serve.

It would be wrong, of course, to leave the impression that today's big problems are going to dissolve quickly and easily. Regulatory bodies remain unconvinced, in many cases, of the merit of abandoning losing service. Pricing, too, is a hard nut to crack. Aside from the rigidity of regulation, there is a broader problem—what some executives refer to as "lack of equal opportunity." In plain words, subsidized competition.

Competition—Can Railroads Match It?

There is no question that today's competition for passengers is the toughest the railroads ever faced. But there's widespread feeling that railroad passenger service has its own good, and salable, points. Here's what presidents of some of the major passenger-carrying railroads told us about air and highway competition.

"The railroads are entirely capable of competing effectively with automobiles and airplanes in the mass transportation market. . . . If we can maintain a price advantage over our competitors, and offer fast, comfortable and safe rail service, the railroads should have an excellent opportunity . . . particularly for distances between 100 and 500 miles," said J. M. Symes of the Pennsylvania.

"We believe," said H. E. Simpson of the B&O, "that with low. attractive rail fares, convenient and fast schedules, and modern equipment, the railroads can still compete. . . . Further, that constant improvement in these categories will enable them to maintain this competition for a long time to come."

P. B. McGinnis, head of the New Haven, put it this way: "If we merchandise low cost, comfort, speed, parking and, most important, safety, the railroads in heavy density territory at least will get back millions of riders."

"In the long run, railroads are capable of competing effectively . . . but it will not be possible to do so profitably without some major changes in our present plan of operations and marketing," declared A. E. Perlman of the New York Central. "We believe it will be necessary to develop an entirely new concept of rail passenger service and to market it intensively."

From the Midwest, W. A. Johnston of the IC said he believes railroads "will continue to be an important factor in intercity transportation" and air competition will not eliminate the "substantial market" for railroad passenger transportation. His view coincides with that of C. McD. Davis of the Atlantic Coast Line. Mr. Davis "knows of no instrumentality of transportation better adapted to handling masses of people than the railroads . . . 300, 400 or 500 persons at a time . . . and for a long time to come there will be such masses to transport."

Another Midwesterner, J. D. Farrington of the Rock Island, is inclined to shade his optimism about air competition because, as he puts it, "it is becoming more and

"A RAILROAD HAS A RIGHT to expect a reasonable profit from passenger operations, the same as from any other class of operation which it conducts."

more difficult to meet their pricing under existing subsidized operations." Mr. Farrington thinks time and pricing are important to most travelers, and railroads must compete with price except in intercity runs where they can almost match, downtown-to-downtown, the time required to go by air. Mr. Farrington's concern with competitive pricing is not exclusive; a number of other top executives feel the same way and say so.

J. M. Budd of the Great Northern, and Robert S. Macfarlane of the Northern Pacific, express parallel opinions. "I feel strongly," Mr. Budd said, "that there is a place for passenger operation in the railroad field and that it will continue. The most lucrative fields . . . are for medium and long-distance travel. I have every confidence that travel by rail will continue in this area and that the railroads can provide fine quality service without losing money."

D. V. Fraser of the Katy said his road has experimented successfully with coach fares "designed to meet the private automobile competition." He believes, like Mr. Simpson, that attractive fares, coupled with convenient schedules, good dining car service and comfortable equipment will continue to lure business to the railroads.

Nor does the flag drop in the West or Southwest. D. J. Russell of the Southern Pacific says he can't predict future traffic levels, but "we are optimistic that our business will establish on the basis of a certain steady percentage of travelers who will want to go by train as against air or highway." In the Southwest, W. G. Vollmer of the Texas & Pacific reported the feeling on his road that railroads "with their fine record of safety and varied accommodations to fit every need and purse" are quite capable of competing with their airplanes or autobiles. Buses, too, for that matter.

These top executives go beyond the bare expectations that passenger service will continue. Most everyone thinks in terms of earning a profit, eventually if not now. The word, "profit," of course, can be misleading. As Mr. Fraser said, "we must have a complete understanding of the real return. Any passenger service that pays out-of-pocket operating costs, plus some return toward maintenance costs, is actually contributing money to the till." Thus, while much is said about the "prestige" value of passenger service, there seems to be a general understanding that prestige won't pay next week's wages.

Replies to the question, "What should a railroad really expect to get from passenger service?" were virtually unanimous. "Railroad management," said Mr. Russell of the SP, "should still try to make a profit on passenger business, even though that possibility seems remote. Certainly we should make every effort to cover out-of-pocket costs so that it may contribute something to overhead. This we are accomplishing on the SP."

Mr. Macfarlane of the NP said it is his road's ambition to make passenger service "as profitable as possible"; IC President Johnston said he expects passenger operations to contribute to net income, which they do"; and Mr. Symes of the PRR said a railroad, particularly a large one, should expect to break even . . . and perhaps actually realize a modest profit on passenger business.

Mr. Budd agreed with Mr. Russell that passenger revenues should cover costs and contribute something to overhead; but, he called it "unthinkable" to talk in terms of covering fully allocated costs. Mr. Simpson summed up his views by saying passenger service on the B&O is expected "to operate at the lowest possible cost consistent with good service."

Yet, while it is hard to measure, there is undoubtedly something to be said for passenger service apart from the dollars-and-cents evaluation. Most executives recognize this. As Mr. Macfarlane observed, "good passenger service is a railroad's best advertisement of its service as a whole." It speaks for unseen operations and services

"ON THE GN, we are handling a million and a half passengers a year an average distance of about 350 miles."

and is something the man in the street can personally experience, something he can see and feel.

Mr. Davis said it like this: "Considering the intangible factors involved in passenger service, such as public relations and goodwill which cannot be reduced to exact financial and mathematical terms, it may well be that a passenger service which in strict financial terms may be a deficit operation might be a profitable operation if the intangible values could be expressed in financial terms."

Mr. Davis went on to observe that in his opinion it is impracticable "to define exactly the extent to which passenger service should be profitable."

Because the value of prestige can't be nailed down, there are honest differences of opinion about it. To run passenger trains for prestige purposes alone would be "nonsense," said one president. Another said continuation of non-profitable passenger service from the standpoint of prestige advertising is seldom justified.

Mr. Symes suggests that prestige advertising from passenger operations can be greatly overestimated. He noted, for example, that his road in 1954 could have bought a great deal of conventional and effective advertising for that year's $43 million passenger deficit.

Will It Woo Shippers?

The effect of passenger service on freight movements is argued two ways. The time-honored theory, "as the passenger goes, so goes his freight," is well established. Then there's the side which holds that freight shippers prefer not to "subsidize" passenger operations through higher freight rates. A pretty good case can be made either way.

"The value of passenger service from the standpoint of shipper contact is debatable," according to Mr. Farrington. He says he has seen instances where improved service probably did have a favorable effect on freight, but he points out that a lot of railroads with heavy freight volume have virtually no passenger service at all. "The class of service," he concludes, "probably has more effect than the question of operation or non-operation of passenger service."

Mr. Symes makes a like argument. "The use of passenger service as shipper contact is unrealistic," he said, "when it involves a passenger deficit, for the deficit must be made up . . . from freight service." There is also the danger of committing an error in passenger service which will alienate a shipper, whereas a competing railroad or trucker runs no risk when no passenger service is involved.

Mr. Perlman believes the use of passenger service as a shipper contact is necessarily secondary. The first job, he says, is to produce "at least a small profit; and, if possible, a large one."

A number of other executives, meanwhile, offer the view that passenger service does, as Mr. Simpson states, "react strongly in favor of the company in its contacts with freight shippers."

(Another article in this issue affords a sample of what these shipper-customers think of railroad passenger service.)

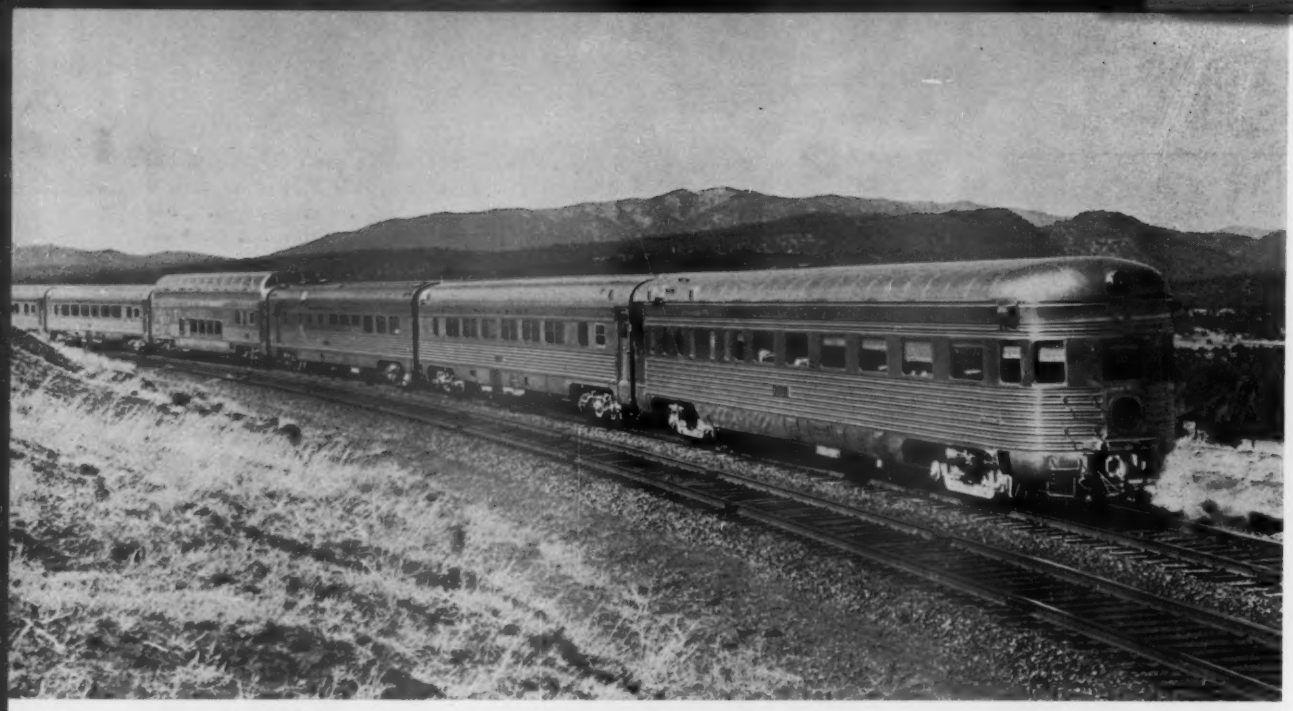
"On the Illinois Central," Mr. Johnston reported, "passenger operations have a high rank in development and maintenance of goodwill among shippers." The Southern Pacific's Mr. Russell feels that passenger service and the passenger department "should be utilized to the fullest extent possible in the improvement of shipper contacts." And Mr. Davis of the ACL says passenger service should and actually does provide a vital contact between the shipper and the railroad.

Mr. Fraser of the Katy assigns "high value" to passenger service as an advertising and shipper contact medium, while Mr. Budd of the GN believes "freight shippers are frequently influenced in routing their traffic by their reaction to passenger service on individual railroads." Still further support for this viewpoint comes from Mr. Vollmer of the T&P, whose road sees good passenger service functioning "in good measure as shipper contact."

While the value of passenger operations as a prestige factor or a shipper contact is debatable, there are other areas about which there can be no question. Management believes it must be given greater freedom to tailor service to today's demands. Services not used—which the public, by its lack of patronage, has indicated it does not want—must be eliminated. The remaining service must conform to the wishes of railroad patrons, and all efforts, both financial and personal, must be concentrated in this direction.

"We believe," Mr. Perlman said, "that the railroad industry must aggressively seek effective marketing methods whereby it can sell its product effectively against present day competition. We are taking steps in this direction, like the use of marketing research, and in the very near future will undertake a national survey of the national travel market as a beginning step in this direction."

But above all else, as Mr. Farrington observes, "we will enjoy the traffic which normally moves by plane and by automobile during periods of adverse weather conditions."



"WE CAN SELL railroad passenger service with our 'plus' factors of comfort, cost, convenient schedules, dependability and safety."

WHAT'S AHEAD FOR THE PASSENGER BUSINESS?—II

Here's What Passenger Men Are

New merchandising ideas and market research are in for attention—Object: Service that pays

Ten years of rough competition since 1946 haven't put a crimp in the outlook of railroad passenger traffic officers.

Today's passenger traffic manager is, on the average, a refreshing fellow to talk to. He's convinced there's a place for railroad passenger service, and, more important, he believes the railroads are about to answer some of the riddles that have pestered the passenger business since World War II.

Evidence of such thinking turns up often. In the past two months, *Railway Age* has either talked with or "polled" passenger traffic officers all over the country. There's new and widespread interest in merchandising techniques, and a growing concern over the need for market research. Passenger men are taking a new look, too, at "what we have to sell."

There is, nearly everywhere, a keen awareness that railroad passenger service can be trimmed of money-losing appendages. This suggests new efforts to cut off trains that don't pay their way, greater concentration on good main-line service, and a batch of new selling plans.

Officers of one road, for example, are currently examining passenger sales work like any manufacturer of hard goods might do. They're looking at the distinct areas of sales policy, planning, direction, management, "product design," and price. If there are weak spots, such an analysis will uncover them.

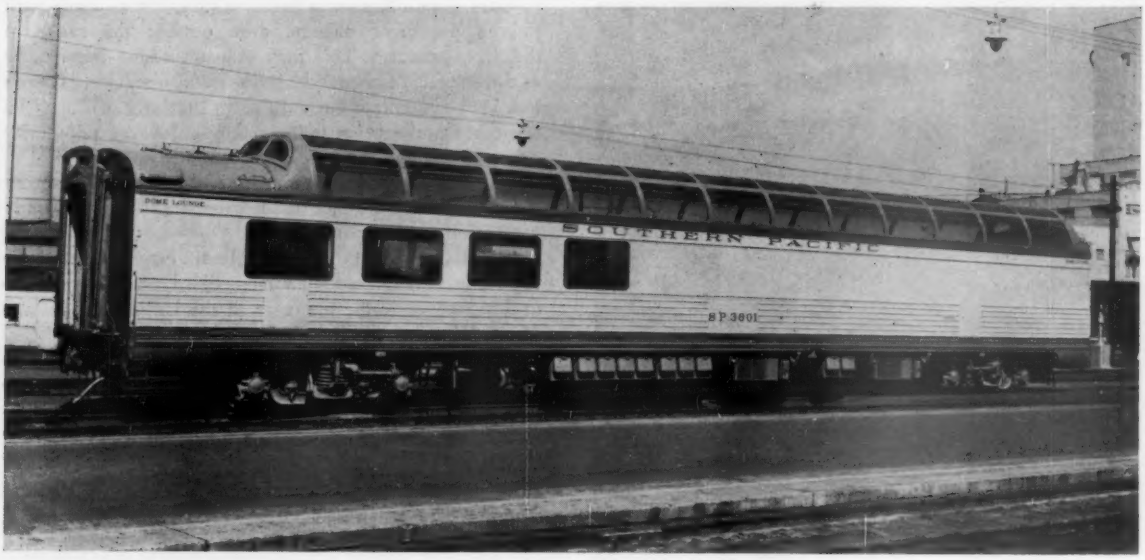
It wouldn't be cricket, of course, to imply that there are no problems among passenger officers. They have plenty, some beyond their control. One major roadblock is the legal framework which restricts their pricing freedom. Another—to this reporter at least—is a simple lack of authority.

Too often it seems, passenger men need more say-so on crucial matters if they are to carry out their responsibility properly.

Still another thing that puts a damper on passenger officers is the much-publicized passenger deficit. They think it confuses the public, and continued reference to it retards the value of merchandising efforts.

"An unadvertised, unpublicized campaign within the industry to confine our public comments to an *aggressive* instead of *defensive* type would be the greatest single contribution which could be made," says G. W. Rodine, passenger traffic manager of the Northern Pacific. Mr. Rodine believes such a step could actually create additional passenger traffic. "In other words," he concludes, "let's stop placing hurdles in our own path." (A discussion of the deficit problem appears on page 150).

Most railroad passenger officers today agree that their *real* competition is not in the air but on the highways. They're putting more emphasis on the rail-auto plan as one answer. And in some places, especially in the East, they keep exploring the idea of fare cuts. Incentive fares,



BRIGHT NEW EQUIPMENT, like the Southern Pacific's 85-ft dome lounge cars, gives the men on the street something specific to "sell"—helps "buck up" morale throughout the department.

Doing . . .

such as family fares, are pushed everywhere, even on roads that aren't convinced of their profitability. They recognize family fares as good public relations.

What Can a Railroad Sell?

What does a passenger man have to sell? What should the railroad emphasize in advertising?—Those questions produce a variety of answers. "Service" is perhaps the best "catchall" word for it; but to passenger officers it adds up to such things as comfort, dependability, safety, schedules timed to the traveler's liking, good equipment, and cost.

Railway Age posed this question: "Recognizing the difficulty of selecting from among several important points, what is the most important item to be stressed in soliciting passenger business (fares? safety? convenient schedules? comfort? other?)?"

Comfort ran away with first place in replies. The word means different things to different people, it's true, but passenger men mention it more often than anything else.

Counting the number of "mentions," and with no effort, to score the answers, comfort was followed in close order by cost, convenient schedules, dependability and safety.

Of course many passenger officers say you can't take any one thing by itself. They argue that railroads have to sell a "package."

"No one [can] honestly select one 'more important' item to stress in railroad advertising and solicitation," H. F. Eno, passenger traffic manager of the Denver & Rio Grande Western, wrote in answering the poll. "Certainly the suggestions you offer are all of importance. Perhaps most of these should be stressed in some kind of rotation, and frequently several or all of these factors could be included in one piece of advertising."

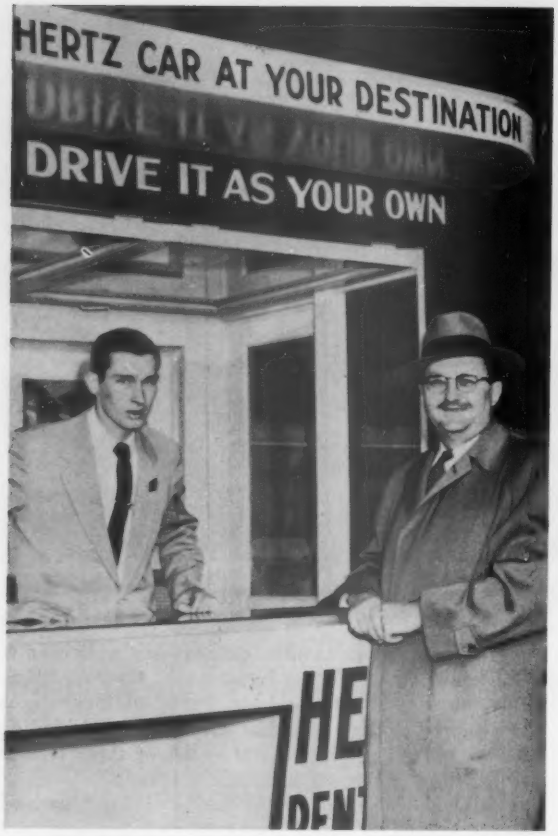
Two southeastern roads, the Seaboard Air Line and Atlantic Coast Line, come out pretty close together, too. Both J. R. Getty, general passenger traffic manager of the Seaboard, and J. B. Sharpton, passenger traffic manager of the ACL, give top billing to "comfort." Mr. Sharpton joined J. A. Barrett, who holds the same position on the Wabash, in making specific mention of the value of "a good roadbed" in contributing to passenger comfort.

"It seems to me the most important items to be stressed in railroad advertising for passenger traffic are convenient schedules and the comfort and relaxation of railroad travel as compared with other forms of transportation," observed C. E. Peterson, vice-president, system passenger traffic, of the Southern Pacific.

This interest in **convenient schedules** is significant, especially in view of what some travelers say they buy. Industrial traffic managers (see the next article in this issue) list that as their most important concern.

Dependability, too, is a salable commodity. F. H. Baird, assistant vice-president of the New York Central and president of the passenger officers' association, puts this high on his list. As another passenger officer said in answering the poll, "trains are not grounded at the last minute on account of weather."

Safety gets frequent mention among passenger men. But it is something which, from a sales standpoint at least, can best be sold in reverse. A poor safety record jeopardizes all other sales efforts; yet safety by itself is a hard thing to personalize and sell the public. That's evident from the vast number of people who go by automobile, perhaps the most hazardous form of travel. Nor have air lines had trouble attracting passengers, despite a safety record which has been consistently inferior to the railroads'.



NEW HERTZ BOOTH in Denver Union Station is visited by Terminal Manager C. E. Breternitz (right).

HERTZ UPS RAIL-AUTO PROMOTION

The Hertz Rent A Car System is stepping up its promotion of rail-auto travel with the railroads. The recently signed contract with the Pennsylvania, according to a Hertz spokesman, "has set the pattern for what will be done with other railroads in the immediate future."

The PRR contract calls for installation of Hertz direct line telephones or rental counters in stations in 46 cities (*Railway Age*, March 21, page 7).

"We are convinced from past experience with railroad depot installations that we must merchandise the rail-auto plan on a point of sale basis in all railroad stations," says William J. Jann, assistant to executive vice-president of Hertz. "Before too long we hope to have a direct telephone in every depot of consequence in North America."

"These direct line telephones should serve rail passengers two ways. When the passenger detrains, he can pick up the phone and have a car delivered to him in a matter of minutes. When he is leaving town, he can walk over to the phone before he gets on the train and reserve a car for his next stop."

According to Jann, Hertz has earmarked about half of its $1,200,000 advertising budget for rail-auto promotion. In addition, the company is developing a "Why Drive?" folder aimed at convincing readers they are better off to leave their cars at home. The company is also supplying railroads with playing card sets and score pads for use in Pullman and club cars.

Cost is another consideration that looms high with today's passenger officers, even outside the ranks of the "rate-cutters." This may take on added importance as the so-called lightweight trains go into service. There's talk in the East that such trains in that area will carry a two-cents-a-mile price tag. If they enjoy the popularity expected of them, price will undoubtedly be a factor. Yet, as one passenger traffic manager observed, "It is very difficult to sell a product just because it is cheap." Equipment itself plays a part.

No doubt of it, new **modern equipment** is a big thing. Many passenger men, like E. A. Klippel, general passenger traffic manager of the Union Pacific, and M. D. Riggs of the Frisco, consider it highly important because it's something the public associates with the whole concept of "progress." Equally important, new cars, new stations, anything "new," give the passenger man-on-the-street something specific to "sell." And any passenger department benefits when overall morale is "perked up."

What's the Outlook?

Passenger officers around the country differ quite a bit in talking over prospects for the immediate future. In some cases, estimates made early this year have been edged upward. It looks now like passenger business in the West in 1955 will be about even with last year. Most guessers in the East talk of slight drops, ranging anywhere from three to nine per cent. A similar outlook crops up in the Southeast.

But talk of a drop in passenger revenue isn't always what it appears. As the drive to abandon deficit service succeeds, gross revenues are affected. The same is true when extra fares are lopped off. The Santa Fe in 1954, for example, showed a passenger revenue drop from the previous year, but that road's R. T. Anderson attributes a large part of it to the dropping of extra fares.

On the growth side, there's going to be a lot of scratching for passenger business in the months ahead. Right now, there's more selling of group and excursion business than there has been, perhaps in years. Roads like the Baltimore & Ohio, Burlington, Wabash, Santa Fe and New Haven, to name but a few, are going after this business in a big way. Military movements, which dwindled badly under the impact of "non-sked" air line competition, are showing signs of improvement. Just how much this will be, no passenger officer cares to guess.

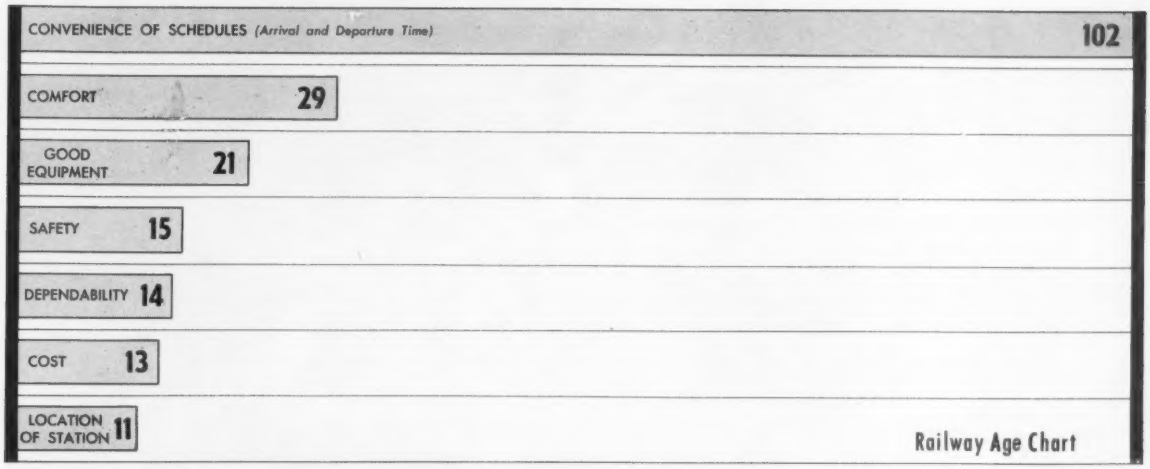
This much is certain: With more knowledge of their market—where it is, what it is and who it is—railroad passenger men are looking for better days ahead.

William A. Patterson, president of United Air Lines, served as a panel member at a meeting in Chicago a few weeks ago. During the discussion he recalled how a railroad executive once told him that if the air lines want all the passenger business they're welcome to it. "But whatever you do," he said, "don't just take half of it and leave us stuck with what's left."

The UAL president laughed in recalling the incident, and went on to say it is unfortunate for both the air lines and the railroads but that is about what has happened. "Of course," he added, "we're doing everything we can to get it all."

Chances are, Mr. Patterson will find the going a lot tougher from here on in.

Customers Say They Like These Things Best ——



BUSINESSMEN TRAVELERS give schedules top priority. Railroad passenger comfort gets relatively higher billing with the public at large.

WHAT'S AHEAD FOR THE PASSENGER BUSINESS?—III

What Some Customers Suggest . . .

Industrial traffic managers—men who "buy" a lot of travel—are influenced by schedules, comfort and up-to-date equipment—Too often, though, they're distressed customers

Ask any industrial traffic manager around the country what he thinks of the railroad passenger service and chances are he'll give you an earful.

He's apt to have some pretty definite ideas on how railroads can better their passenger business. These men buy a lot of transportation in a year, and they pay a big share of the nation's freight bill. On the whole, they're important customers.

Railway Age queried a sizable cross-section of these men to find out what they're influenced by when they go out to buy tickets. Then we opened the door a notch wider and asked for outspoken and unvarnished comments on how railroads can better merchandise their passenger service. The "poll" scored replies from 64% of these men, who are members of the panel contributing to the monthly "polls" conducted by *Railway Freight Traffic*.

It's no job to figure out what the traffic officers are buying. As Robert W. Bagby, traffic manager of Dempster Mill Manufacturing Company, put it, "Schedules are of primary importance and certain trains are picked from the standpoint of comfort. Third, but not least, safety is a factor we all recognize as important. Of course, with the high competition in rail travel today, we believe we should assume that all carriers are on their toes in this regard."

Returns from the poll were scored. First-place preference "mentions," like Mr. Bagby's remark about schedules, got a rating of four points. Three points went to second place, two to third place, and one to fourth place. On this basis, convenient schedules built up a point score of 102. Comfort ran second, with 29 points, and good equipment, probably "visual" more than anything else, scored 21 points. You can see the complete picture in the accompanying bar chart.

Naturally, these traffic men in many cases merely reflect the specific preference of the man doing the traveling. This seems to vary. But whether they buy or whether they advise, the traffic managers still keep pretty close tab on what the railroads have for sale.

One thing is certain: They have a raft of ideas on what

INDUSTRIAL TRAFFIC MANAGERS believe railroad passenger service will be a better, more easily sold product if the carriers will:

1. Improve on Courtesy
2. End Reservation Difficulties
3. Expand Advertising
4. Speed Ticket Selling
5. Upgrade Diner Service (and cut prices)
6. Add New Equipment
7. Cut Fares
8. Improve Baggage Handling
9. Eliminate Tipping
10. Give Special Help to Casual Travelers

"IT APPEARS to me that if business in general were to adopt the policy of curtailing service and availability of products to the same extent the railroads do when passenger business falls off, there would be no business at all within a very short time."—*E. H. Endroll, Hollywood Brands.*

the carriers can do to update their passenger service. The most frequent thing they mention is employee courtesy. They speak, too, of the need for speedier handling of tickets, better control of space, more effective advertising and a flock of other things—about 18, when you sift out the duplications.

Smiles and Wiles

"Don't the railroads screen their ticket sellers to remove gruff employees?" asked Peter Badarak, traffic manager (rates) of Great Lakes Steel. Almost 50% of the traffic men answering the poll mentioned, in one way or another, the need for more courteous treatment by railroad employees.

"Aside from speeding up services," commented O. A. DeCroce, general traffic manager of Armstrong Cork, "the one area in which more can be done than any other is in railroad employees' dealings with the public.

"There is perhaps no other segment of the American scene where the buyer receives less courtesy and cooperation, and meets with more rebuffs, than in his dealings with railroad personnel. True, railroads employ many people who are courteous, sympathetic, and cooperative, but there are altogether too many of the old school who look upon the traveling public as a necessary evil and something that is only to be tolerated."

R. J. Tyler, general traffic manager of Girdler Company and Tube Turns, suggested "It might be well for personnel of the rails to adopt the same attitude as that of the air lines, that is, be helpful rather than give the traveling public the idea that you are doing them a big favor." H. H. Horton, who has the same position with General Baking Company, agreed: "Too many reports of personnel arrogance reach us to dismiss the phrase of a 'new look' being adopted by the rail lines in this phase of the subject."

"Train personnel should display more interest in the traveler and convince him that it is a pleasure to have him riding that train," said H. H. Pratt, general traffic manager of Crucible Steel Company. "The attitude of employees in day coach service is not generally too good. Even a day coach passenger resents evident negligence or a 'don't give a damn' attitude by employees. Probably, too many passengers look upon a train trip as something that will be unpleasant, tiring and uncomfortable. It must be made otherwise."

Beneath this there is a frank willingness to help the railroads. Though none mentioned it in this poll, some traffic men have been known to look askance at the railroad passenger service for financial reasons. They say it eats up revenue and makes for higher freight rates.

Fracas at the Wicket

More than a quarter of the industrial traffic managers told *Railway Age* they get annoyed with railroad handling of reservations and tickets. If the carriers want to get the most out of repeat business, they must, as one traffic manager summed it up, "eliminate clerical red tape."

"Difficulty in securing reservations has been one of our worst bottlenecks," reported R. R. Detweiler, traffic manager for Daniels & Fishers Stores. "Why spend a half hour making a reservation and securing tickets,"

he said, "when it is possible to do the same job in five minutes with the air lines?" Mr. Detweiler thinks there's need for better telephone reservation service, and more prompt issuing of tickets. Some lines have greatly improved, he said, but others are still lagging and at times it appears they are trying to make it more difficult for customers.

Even the newest methods of handling reservations are not perfect, according to Mr. Pratt of Crucible Steel. These methods may be satisfactory to the traveler who calls at the window the day of departure, he said, but to those handling a number of reservations for a variety of trains and dates, they are slow, subject to error, and interfere with important personal contact between interested parties. "In brief," he added, "the machine system treats the volume customer with no more consideration or courtesy than the occasional traveler."

If the passenger service does nothing else, it generates different opinions. So not everyone agrees with Mr. Pratt. At least two other traffic officers, one in Cleveland and and one in Cincinnati, suggested that railroads need to improve actual ticket selling facilities "along the lines of (recent) experiments by the New York Central and Pennsylvania."

Arthur Todd, traffic consultant for Lincoln Electric, believes railroads can do a lot to improve passenger-service merchandising by handling reservations and tickets as the air lines do. "The reservation methods and credit cards used by the air lines are so vastly superior to anything used by railroads presently that there is no possible comparison," he said.

"All railroads could place greater emphasis on personnel training in their information, reservation and ticket bureaus," observed Robert A. Widmer, traffic manager of the Cleveland Cap Screw Company.

Failure to handle space with speed and decision bothers a good many of these influential customers. C. M. Naylor of Black & Decker manufacturing said carriers shouldn't make it so difficult for a passenger to get the space he wants. He touched on the late-cancellations problem with this comment: "Many times, one has to go to much trouble to obtain the reservation of his choice only to find, when he gets on the train, a number of such spaces unoccupied.

"The method used by the carriers for alloting space is no longer adequate for present-day travel," he added. "Better control is necessary because, no doubt, of late cancellations by travelers who make reservations with more than one type of service to be sure they obtain what they want."

Late cancellations are, of course, a law unto themselves; and the recent adoption of tighter rules in the East, aimed at improving the situation, is drawing some criticism. (A discussion of this particular problem appears on page 158).

"These rules are causing considerable diversion of our business from rail to air," reported John J. DeLaney, traffic manager of American-LaFrance-Foamite Corporation. "Many times men may be en route and their plans have to be changed. But when you have a program set up for a man and divert him en route, then can't secure a refund on your Pullman ticket although you have notified them several hours in advance of train departure, I think the carriers are making a big mistake."

"I THINK (railroads) should petition the commission for general authority to cancel all passenger trains when they can show that the overall cost of operation exceeds the income from the train over a representative period of time." —*M. J. Barron, Ekco Products.*

Other complaints about ticketing practices, especially the alleged lack of speed, are frequent. James P. Haynes, manager of transportation for the Louisville, Ky., Chamber of Commerce, said carriers trying to attract business should "materially reduce time at ticket offices in ticket-

RAILWAY AGE—Passenger Traffic Poll

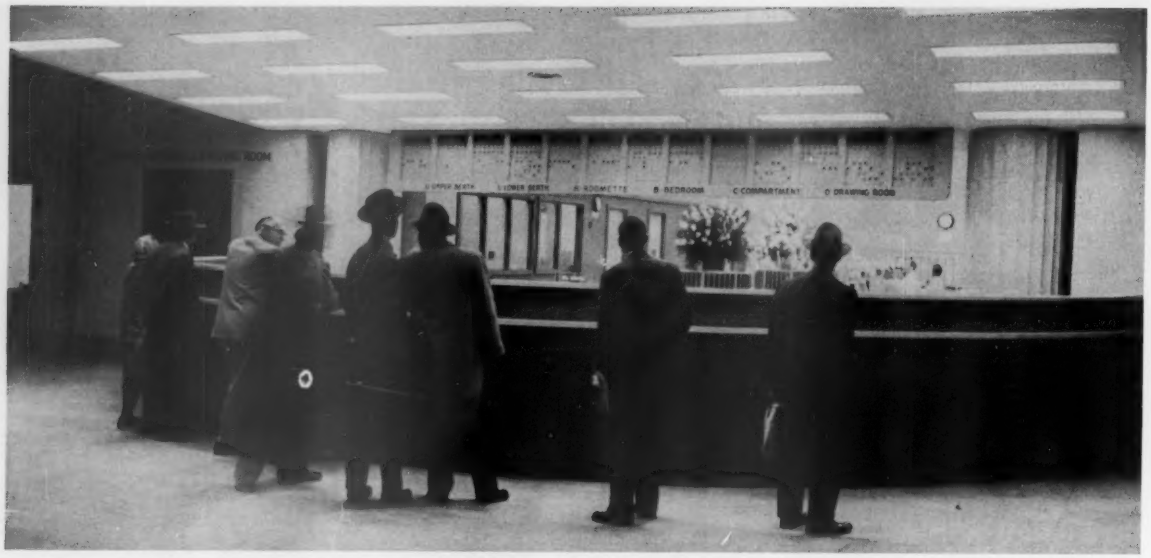
PROPOSITION

With losses from passenger service taking an increasing bite from freight revenues, there is impelling need for greater, more effective merchandising of railroad passenger service. To spotlight one area where greater sales effort may be needed, *Railway Age* is seeking answers to the following question from the men who, in the course of their daily work, are in the market to "buy" travel—the Industrial Traffic Managers.

QUESTION

Recognizing the difficulty of selecting from among several important points (safety, comfort, schedules, etc.), what factors do you consider when you purchase railroad passenger travel for your company?

Ballots sent out—64 Ballots received—41



LATEST METHODS for handling reservations win the approval of some traffic men; but there is a complaint that such "machine systems" treat the volume customer with no more consideration than the occasional traveler.

ing passengers. A railroad passenger ticket over two or more carriers takes too much time in processing and confirming reservations. A study should improve the time waste of all concerned."

"Speed up the selling of railroad tickets and Pullman accommodations," urged Mr. DeCroce of Armstrong Cork. "It should not be necessary for a patron holding space assigned to him by telephone to wait at a ticket window while the tickets are made up."

Fares and Tips and Meal Charges

A good share of the travel reflected in the *Railway Age* "poll" is the kind that sooner or later shows up on somebody's expense account. It's essentially businessman travel. But these traffic men have a sharp eye for cost, regardless of who pays. Several mention fare cuts as something railroads should explore to get more business.

"Railroads should effect an overall decrease in fares," said the passenger traffic manager of Ekco Products Company. "In addition to the normal lower round-trip fares, the carriers should adopt still lower round-trip fares, good leaving origin point on certain days of the week. Family plan rates were a step in the right direction, but the general idea should have broader scope and coverage. And the carriers should work with the Pullman Company to secure reduced round-trip Pullman rates."

"Considering the overall cost of sleeping accommodations, meals, etc., you can fly just as cheap," declared G. B. Niemann, general traffic manager of Holeproof Hosiery. He thinks lower fares "certainly would attract more travelers."

A. G. Anderson, g.t.m. of Socony Mobil Oil, put it this way: "It seems to me the railroads will have to reduce their fares on long distance travel, such as New York to Florida and New York to California, in order to recapture passengers or hold the business they now have. The time element obviously makes the railroad a differential service, and fares, therefore should be considerably below the air lines."

This concern over cost extends to the diners, to luggage handling and to the general practice of tipping. A motor company traffic manager said he believes that if railroads were to eliminate tipping it would create a much better feeling. "I have personally heard much criticism of this practice," he said. W. S. Franklin, g.t.m. of Brown-Forman Distillers, endorsed the same idea. "Eliminate the gratuities now necessary to obtain service," he recommended.

"Why can't the railroads absorb the small red-cap cost to provide a free baggage service so it would be a pleasure to ride a train?" inquired Mr. Badarak of Great Lakes Steel. L. C. Luth of Gould-National Batteries offered a similar suggestion. "Continue to improve luggage handling," he said, listing it first among things he feels railroads should do to upgrade their merchandising.

Dining car service, which many railroad passenger officers consider the "showplace" for their trains, is still not like Caesar's wife. Some people, at least, like the air line habit of serving free meals en route. Mr. Horton of General Baking thinks railroad dining car men should look over recent developments in frozen-meal packaging, lest they miss a chance to cut costs.

"Dining car menus should be made more attractive and less repetitious," declared Mr. Pratt of Crucible Steel. He also finds it annoying to have extra linen and silver piled on tables with one or more unoccupied seats. And he suggests that more attention could well be given to youngsters when they are in the diner, maybe give them some sort of memento to help them remember the railroad.

Toot Your Horn a Bit

Answers from some industrial traffic men, close as they are to transportation, reflect a lack of information about specific details of the passenger business. Naturally, not

THIS KIND OF COURTESY is all too often missing, said nearly half the industrial traffic men replying to the *Railway Age* poll.

every recommendation they make is practical, and things are sometimes mentioned that have already been tried and discarded by forward-looking passenger officers. But the very fact that such suggestions are made gives rise to still another one: Isn't a business this size worth talking about?

George O. Griffith, g.t.m. of American Home Products Corporation, wonders why railroads don't, for example, point up on-time records of railroad passenger trains as compared with air for a typical winter month. He thinks the roads would come off well by comparing rail and air door-to-door transit time for shorter distances.

"Specific examples should be used, showing overall time between representative points," he said.

"For both the commercial traveler and vacationer, advertise the availability of rented cars vs. long automobile drivers," suggested James W. Peeke of Northrup King & Co.

George Lambries, traffic manager for Mirro Manufacturing, says railroad advertising should bring to the general public's attention "what it costs to travel by rail, and what they get for their money." Herschel Hollopeter of the Indiana State Chamber of Commerce urges that railroads advertise—intelligently and consistently—the dependability of travel by rail.

Still another slant on advertising comes from Mr. Widmer of Cleveland Cap Screw Company: "Perhaps one of the greatest factors in influencing potential customers would be an advertising campaign making a direct appeal to women. I think the value of this type of appeal has been overlooked and would stand investigation."

Some of these traffic men say quickly that their suggestions are meant solely "in a constructive light." Others state frankly they think the railroads are already doing a good job. Earle B. Le Sher, traffic manager of Endicott Johnson Corporation, is one of these. "We feel," he said, "that the rail carriers are properly merchandising passenger business. The comforts and safety of railroad service are far more favorable than any other form of transportation at the present time."

Mr. Lambries of Mirro said much the same thing. "We are glad to say that we do receive fine cooperation in obtaining reservations," he reported, "but when we see so much equipment going through and cars not fully occupied, we must admit that rail carriers have to do something to attract more patrons."

Many Fly Home Nights

Air travel gets frequent mention by traffic men. Distance and time are often important, as in the case of J. L. Bergen of Converted Rice, Houston. Mr. Bergen said executives of his company "do not generally use rail transportation, especially on trips involving a long distance."

He said they also look with approval on the air line practice of "packaging pricing"—ticket, food and tips, all on one bill.

Another practice that seems to be quite widespread is that of going one way by rail, presumably because of railroad dependability, then flying home after the day's work is done.

"Many times we utilize train space on the going portion of the trip and airplanes on the return trip, because our people can complete a day's work in points as far as 500 miles from home and still get back home that same evening" reported R. H. Thompson, g.t.m. of Maytag.

He went on to comment that most trips over 500 miles "are taken by air."

Suburban Living a Factor

Modern suburban living and decentralization even enters the picture in some cases. Mr. Todd of Lincoln Electric, speaking of flying, said today's residences in the suburbs are often as close to the airport as to the downtown railroad station.

In such case, he said, travel to and from the airport is probably easier. At the other end of the trip, if the place of business is a considerable distance from the center of town, flying is likely to be the traveler's choice. Like Mr. Thompson of Maytag, Mr. Todd reported that "most of our people prefer to take a plane back to Cleveland immediately at the end of the business day, instead of wasting part or a whole evening in some other city, until the night train departs on its return journey."

Air line credit cards are perhaps a big factor in why these men fly home nights. For one thing, it conserves pocket money.

Apart from this, many companies seem to prefer paying their travel bills on a 30-day basis.

"Install a national credit plan so companies can pay only one invoice each month," urged Mr. Franklin of Brown-Forman. H. H. Hunt, passenger representative for International Minerals & Chemical Corp., goes even further.

In addition to credit card arrangements to avoid cash payment for each ticket, and special service desks in reservation bureaus to handle large commercial accounts, he sees a need for providing ticket stock to commercial accounts to eliminate ticket office waits entirely.

SUCCESS OF FAMILY PLAN fares will be determined, in the final analysis, across counters like this.

Fares—Are More Cuts Ahead?

Present signs indicate that passenger fares may get a shuffling as carriers drive to get business off the highways—Some don't like the family plan

Railroad passenger fares, which have had their ups and downs for 125 years, may be in for more jockeying in the months ahead.

Some signs already point that way. And while there are brisk cross-currents, it looks like the trend is downward. A good many passenger officers feel they can come closer to automobile operating costs, then pound home the message that driving isn't worth the difference. How far they can go is still to be answered, but as of now it looks like this:

- Any cuts that come will probably show up first in the East. For one thing, the basic fares are higher there. There's more room to cut. Roads in this area already have a variety of incentive fare plans, ranging from isolated low-fare "experiments" to group excursions. And delivery of the new lightweight trains may set the stage for more action. The New Haven's management is on record that its low-slung trains will carry a two-cent fare. What this will do to present fares, even if the new trains are "segregated"—i.e., placed in service on runs with minimum competition from other trains on the same road—is a good question. One guess: They'll tend to set a ceiling.
- In the West, there could be another push by some roads to extend family fares over the entire week, even thnugh such a move would rebunch travel on weekends. Some passenger men say such a move isn't likely; others aren't so sure. There's also a good chance that roads with distance restrictions on family fares will terminate them, making the fares good for shorter hauls. Right now, the all-week family fare issue is dormant. Meantime, the Rock Island has added that "standard coach fares" will apply on its lightweight "Jet Rocket."
- In the Southeast, where family fares haven't made much headway, there are fewer rumbles of change. Even here, there are some. The Central of Georgia now advertises five-day "cheaper-than-gas" round-trip coach fares that figure out about 1.518 cents per mile. The Seaboard Air Line and Atlantic Coast Line are both after summertime Florida business with 30-day round trip coach fares 25% under one-way.

Behind this experimenting with fares is the belief, nearly everywhere, that railroads must woo passengers from the highways. Passenger officers place "cost" high among the things they can "sell." It's logical, then, as competition gets tighter, that they will take a closer look at existing fares.

There are, of course, many differences of opinion. Some major Western roads—and one or two in the East—are not convinced that family fares are producing revenue. There's no sign that today's extra fares—on the New York Central, Rock Island-Southern Pacific and Santa Fe—will be reduced or eliminated. At least one road quietly wonders if fares couldn't be upped a little during the vacation season. The theory is, "You don't put on a sale when you're selling out."

Fares for the Family

The family-fare plan, in effect three years in the East and half that long in the West, is still debated. To round up present opinion on such fares, *Railway Age* asked passenger officers, East and West, for their views: Have family fares increased revenues or merely the number of passengers?

The answers point up a split in present thinking. In the West, seven out of eleven passenger traffic managers said family fares have boosted revenue; four said revenue hasn't been helped at all, but the number of passengers may have gone up some. One said it was so close he

would have to vote "no opinion." Meanwhile, officers on four Southwestern roads all credit family fares with hiking their passenger revenue.

It's difficult to come up with precise figures on how good family fares really are. A few passenger officers have made point-of-sale studies, but they admit these aren't always dependable. One road made such a study at the Twin Cities in January, and found that on 98 interline family fare tickets, all but one "family" would have made the trip anyway. Other roads come up with equally convincing figures to support the other side. One carrier cited figures to show that family fare tickets boosted passenger gross by 28 per cent in the June-December 1954 period.

A passenger officer in St. Louis, who favors all-week family fares, agrees the present arrangement has been "fairly successful" on his road; another believes, as R. F. Cowan of the Boston & Maine said last fall in Pasadena, that family fares are "just too complicated" to sell easily. A third said he thinks family fares put a railroad ahead "so long as you don't have to put on extra equipment." The Union Pacific, which "kicked off" the family-fare plan in the West in August 1953, has made no recent studies of what such fares are producing. The road stands pat on its findings of last June. At that time, the UP passenger department determined that family fares added $250,000 to the month's gross.

The Denver & Rio Grande Western's H. F. Eno likes the "braking effect" that family fares have had on passenger revenue. "I think they have been very helpful," he said, "in stopping a deterioration of business volume. . . . I feel that our position would have been considerably worse had we not operated these fares."

Some roads in the far West seem less impressed with family fare benefits. The Western Pacific, for one, believes the fares have actually decreased revenues. The Southern Pacific reports they have not increased revenues on its lines.

"Family fares have not increased passenger revenues on the SP," said C. E. Peterson, vice-president, system passenger traffic. "During the past six months, our revenue from family fares has been 2% of gross passenger revenue, except in December when it was 3%."

In the East, where the family fare plan is more liberal and has been in effect longer, most railroads like it. Eight out of ten passenger officers said family fares have hiked revenue; the other two said no, just passengers. Of course some Eastern roads, like the Jersey Central and the Reading, take no strong position on family fares because of the short-haul nature of their service. The Lehigh Valley says its experience with the fares has not been extensive enough to reach any convincing opinion.

Three major carriers in the East—the Baltimore & Ohio, Pennsylvania and New York Central—all say they are encouraged by revenue showings produced by family fares.

The PRR, for example, said the fares have made a "very substantial" contribution.

The B&O is currently surveying its passengers to try to pinpoint the sales effect of the family plan. This road reports that in the final seven months of 1954 the average number of passengers per family fare ticket was 2.3, and the average revenue per passenger was $33.48. Total family fare revenue in this period crowded $1 million.

Family fares on the New Haven—as on a number of other roads in the East—are only one of several incentive fare plans now in effect. Most recent New Haven efforts have included a highly successful ladies' day fare on Wednesdays (one-day round trip for the one-way fare), and a 10-ride bearer ticket good between New York and New Haven and intermediate points. C. E. Williams, general passenger traffic manager of the New Haven, feels such plans definitely produce "new money" revenue for his road.

Roads in the Southeast generally take no position on present family fare plans since the fares apply only on bridge traffic moving between Mississippi River and Ohio-Potomac River gateways. The Louisville & Nashville participates in the so-called Eastern plan between Cincinnati-Louisville and Louisville-St. Louis, but not elsewhere. Like other roads in its area, the L&N is lukewarm to family fares because of their possible effect on established business.

The Central of Georgia has experimented with a family-plan fare between Atlanta-Griffin-Barnesville-Macon, Ga., and Dothan, Ala., and Panama City, Fla., but reports that the plan in this area "has not proved very popular."

The Seaboard does not offer family fares either, but J. R. Getty, general passenger traffic manager, feels that his road benefits from the summertime coach fare reductions between Washington, D. C., and Florida. He credits the lower fares, which he first tried last year, with increasing volume "as much as 15 to 20% over previous summer months."

KATY FARES WIN BACK BUSINESS

One reduced-fare experiment which has been particularly successful in recent months is the Katy's "Texas plan."

Beginning June 15, 1954, the road published rock-bottom round-trip coach fares between Denison, Tex., and San Antonio and local points. Between Dallas and San Antonio, for example, the round-trip fare is $8.80, plus tax, compared to $11.35, plus tax, by bus. It figures approximately 1.5 cents a mile by rail.

Promoted with extensive on-line newspaper ads, spot radio commercials, handbills and direct mail, the fares were an immediate success. Katy passenger revenue, off the first half of 1954, climbed back in the second half. The road reported a 3.5% increase in this local revenue for the year.

Round-trip ticket sales in the area were up 51.85 per cent.

Beginning January 15, 1955, the Katy went further. The road published new one-way coach fares in the same territory, matching bus rates (Dallas to San Antonio, $6.30, plus tax). E. A. Bohmeyer, passenger traffic manager of the Katy, acknowledges that the one-way fares are a "gamble," but he wants to find out if they can take business off the highway that parallels his railroad from Dallas to San Antonio.

KNOWING WHERE CUSTOMERS COME FROM has been an important factor in keeping "California Zephyr" business at a high level.

Research SELLS the "Cal-Zephyr"

By J. J. ALMS

General Passenger Traffic Manager
Chicago, Burlington & Quincy

Study of travel trends and actual ticket sales has helped pinpoint sales effort — It's a tool any road may find useful

Market research is important in gauging sales, advertising, and merchandising activities. The statement applies to business generally, and is especially important in the passenger department of a railroad.

As applied to the passenger business, market research has broad meaning. It is the study of markets, which are, of course, people—prospects for the sale of railroad tickets. These people live everywhere, some close to our rail lines, others more remote. In the sum total the railroad passenger "market" is vast and difficult to define.

We feel, therefore, that our market potential is almost everyone. A walk through a train or an examination of competitive travel confirms this. It is further substantiated by a study of the growth of our country, as measured by the broader distribution of money, increased consumer purchasing power and greater leisure time for almost everyone.

But the very size and diverseness of our market creates problems. It must be studied carefully in order to realize maximum benefits from advertising and sales efforts. In selling and merchandising our passenger service on the Burlington, we endeavor to keep in tempo with modern selling and merchandising techniques. In analyzing our total market we make constant investigations to determine where our business originates as it applies to the sale of tickets on our main lines between Chicago-Kansas City and the Southwest; Chicago-St. Paul-Minneapolis; Chicago-Omaha-Lincoln-Denver and California; and Chicago and the Pacific Northwest. These investigations help us define the market areas of greatest potential, and make possible more effective sales promotion.

One type of market analysis we use currently was developed from our experience with the "California Zephyr," jointly operated with the Denver & Rio Grande Western and Western Pacific. The travel market to and from California has always been interesting. To analyze it we use not only our own analysis of ticket sales as a guide but outside market studies as well. In general, as indicated by overall travel to California, that market is national in scope depending upon distance.

Some time ago we became interested in one travel study which we considered very reliable. It covered a four-year average for all types of vehicles—highway, rail and air—and showed the points of origin for persons visiting the Pacific Coast. The breakdown was by eight geographical areas, as shown in the following table. The study showed that slightly more than 40% of California's visitors originated in Midwestern states.

EIGHT AREAS PRODUCED VISITORS . . .	. . . IN THESE PERCENTAGES
New England States	3.2%
Middle Atlantic States	8.8%
East North Central States	20.8%
West North Central States	20.0%
South Atlantic States	4.8%
East South Central States	3.2%
West South Central States	12.8%
Mountain Territory States	26.4%

This type of analysis interested us very much, of course, because it supplied a yardstick on our own ticket sales for the "California Zephyr." Armed with this kind of information about where the people came from, we then analyzed points of origin on all "CZ" ticket sales for a month in each season of the year. Our studies showed that the upper Midwestern states—Ohio, Indiana, Michigan, Illinois and Wisconsin—accounted for 44% of our ticket sales in the sample periods. The result was clear. This area provided heavy travel to California and was, at the same time, the largest source for "CZ" business. It was a natural market, well defined, inviting our concentrated attention.

We carried our market study a step further by examining population breakdowns for these same eight geographic areas. We came up with a table comparing population figures with California travel and "CZ" ticket sales, like this:

Area of Origin*	Per Cent of Population	Travel to California by National Survey	Actual CZ Ticket Sales
New England States	6.9	3.2	1.6
Middle Atlantic States	19.33	8.8	14.5
East North Central States	20.60	24.0	44.0
West North Central States	9.69	15.4	.2
South Atlantic & E. So. Central States	19.91	3.9	6.3
West So. Central States	9.57	13.5	**
Mountain States	3.38	17.3	5.4
Pacific States	10.62	14.4	28.0

*Regional groupings revised for comparative purposes.
**Less than 1 per cent.

As a result of our findings we felt we had a fairly good picture of our "California Zephyr" market. So we examined, along with the other two participating roads, our advertising, sales and promotion programs. It was decided that we should redirect our efforts to get concentration where it would do the most good. Among other things, we began regular newspaper advertising in medium-size cities in the Midwest—Toledo, Milwaukee, Grand Rapids, and the like. Our ads are couponed to secure inquiries which we can follow up through direct mail, direct solicitation, or both.

Since the first of our "California Zephyr" studies we have continued to make additional investigations from time to time to keep abreast of any changes in the market. The continued success and popularity of the "California Zephyr," we believe, is partly due to this market research work. Our sales activities are more profitable. Perhaps the best measure of all lies in the fact that while all railroad passenger business has tended to drop our "CZ" business has held quite steady. And we have shown increased patronage from several of the Midwestern cities to which we turned following our initial studies. The "California Zephyr" operates at capacity practically every trip. Our efforts, of course, are to keep the train filled and try to secure more business in off-peak months.

While our first efforts in this research work were with the "California Zephyr," we now use the same general approach to study our traffic potential between other terminals—Chicago-Omaha; Chicago-Twin Cities; Chicago-Denver; Chicago-Kansas City; and Kansas City-Omaha. These studies have shown that as much as 65% of our business on these trains originates in the terminal cities and their adjacent trade territories. This has guided us in placing our advertising and has helped make our sales activities more productive and fruitful. These studies and follow through by our sales organization cover not only vacation travel but regular travel as well. It all adds up to using everything we have in this highly competitive age to keep passengers riding the railroads.

RESEARCH in the passenger business can help define markets and give better direction to sales efforts.

DATA FROM A PUNCH CARD

A single punch card, prepared from each ticket picked up by a conductor, is the basis for data processing by the Burlington's auditor of ticket accounts.

These cards are used in preparing monthly Passenger Statistics Reports on all trains, but they lend themselves to other uses as well. A monthly report on foreign-line ticket sales is run off as one byproduct and is available within 30 days of the month worked.

This statement gives a station-by-station breakdown on the origin of foreign line tickets, and is an important selling tool. With this information, it is quick work to group the origin points into states and states into regions. This was done in analyzing the market of the "California Zephyr" and other "Zephyr" trains.

Passenger Deficit vs. Real Loss

Many individual trains make a substantial contribution to net—but the problem is to get rid of services which do not return out-of-pocket costs

The deficit from passenger-train operations includes a reported loss, but that real loss is nowhere as large as the reported deficit—$705 million for 1953.*

Revenues from the service as a whole do not now equal the direct costs of the operation, but many individual trains are returning out-of-pocket costs and making substantial contributions toward overhead. Loyd J. Kiernan, executive vice-president of the Boston & Maine and formerly with the AAR's Public Relations Department, recently undertook to put the deficit in proper perspective. He had this to say:

"A deficit of any kind is to be treated with respect and alarm, and deficits of the magnitude [of $705 million] certainly challenge the best efforts of every railroad passenger man to find ways to overcome them. I would be the last to suggest a complacent or facetious attitude on this matter. At the same time nothing is gained by magnifying any problem beyond its just proportions. Much that is said about the so-called deficit seems to have been thus magnified.

"The first fact toward which I would invite your attention in this respect is that this 'deficit' does not by any means signify or imply that the railroads paid out $705 million more for passenger service in 1953 than they took in. Neither does it mean that the railroads would have been better off by $705 million if they had operated no passenger service at all. The truth is that this $705 million represents to a considerable extent a bookkeeping procedure."

The "bookkeeping procedure", of course, is that required by the ICC's formula for allocating expenses to passenger-train operations. While that formula is still brought under fire occasionally by economists, it is not seriously challenged by accountants. Under it, nearly 75% of the reported expenses of passenger-train operations are direct expenses; so differences of opinion could arise only with respect to about 25%.

In 1953, for example, the revenues from passenger-train operations amounted to $1,416 million, and the assigned expenses amounted to $1,954 million. Of the latter, however, $1,418 million were direct expenses, leaving only $536 million as the apportioned amount of expenses common to all operations.

This indicates that the revenues failed by $2 million to equal the direct expenses; and consequently, they contributed nothing toward directly allocable taxes of $152 million and net rents for passenger-service equipment and facilities amounting to more than $5 million.

Thus the out-of-pocket loss was something like $159 million—less whatever income tax reduction it brought about.

It has been calculated that the effect of the income tax is such that a passenger-service deficit is borne by the railroads only to the extent of about 48% of its total. On that basis, Mr. Kiernan has calculated that 1953's passenger deficit, after allowance for income taxes, was $338 million.

Critics of the reported deficit argue about the apportioned expense, which in 1953 was $536 million, as noted above. One who has given the matter considerable thought suggests, for example, that the shrinkage of the passenger service as a proportion of all railroad services warrants formula revisions which would load much more of the common expenses on freight operations.

The most serious recent criticism resulted from the revision of the commission's allocation formula which was effective in 1953. The major parts of this revision have now been canceled. They involved three accounts, Nos. 249, 404 and 405, which record costs of operating and maintaining signals and interlockers and crossing-protection devices.

The 1953 change required separation of these costs between freight and passenger-service on the basis of train-miles instead of train-hours. A commission order of December 1, 1954, restored the train-hour basis. The commission's staff has estimated that the formula change had the effect of making 1953's reported deficit from $5 million to $10 million higher than it would have been under the old formula. If the effect of this "inflation" were eliminated, the 1953 deficit would be no less than $695 million, thus holding its place as the greatest on record. The runner-up was 1951's $680 million.

A member of the ICC said several years ago that the passenger-service deficit was the "most serious problem confronting the railroads." In the first of its series of reports on the problem, a committee of the National Association of Railroad and Utility Commissioners cited that appraisal and went on to say that "few people in either the railroad industry or the regulatory field will challenge that statement."

In the third and latest of its reports, issued late last year, the NARUC committee expressed its view that the problem must be solved because it is no longer possible to impose offsetting freight-rate increases. "The imposition of additional freight rate increases has already reached the point of diminishing returns," the committee said.

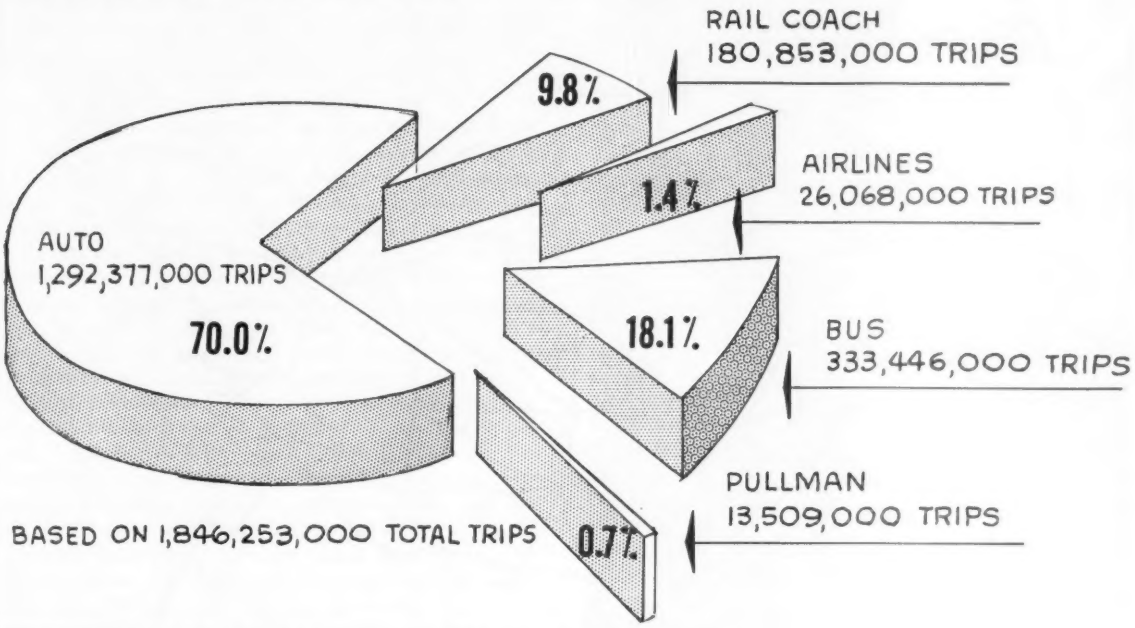
Already there are indications that the deficit could become a major issue in freight-rate cases. Chairman Mitchell of the ICC has said that passenger-train operations are now subsidized "by all shippers of freight." His comment included a suggestion that, perhaps, some method should be found of directly subsidizing "needed passenger services."

Similar suggestions have come from others. There have also been proposals for local tax concessions, etc., to ease the operation of commuter services.

All such proposals, however, are of the relatively long-term variety. As to what can be done now, one student of the deficit advises a continuing drive to get rid of services which do not return out-of-pocket costs. On such runs, as he put it, "anything which saves train-miles or car-miles will help."

*The 1954 deficit is estimated to have been 6% lower than this, i.e., "in the neighborhood of $665 million."

The estimated proportion of total intercity trips made by Pullman, Airlines, Rail Coach, Bus and Auto 1953



BREAKDOWN OF TRAVEL. One conservative railroad-point-of-view estimate made by MacFarland, Aveyard & Co., Pullman Company's advertising agency.

Pullman Looks at Its Market

A new study of travel habits tells Pullman who travels and why—It analyzes today's traveler, his attitudes and preferences, and points toward a vast potential market on the highways

● *Businessmen like to travel Pullman because it affords them a relaxing, restful and comfortable ride—but they drive on vacation because it's convenient.*

● *College students generally go by automobile between home and school—but then 82 per cent of them have never tried Pullman.*

● *Factory workers, when they take pleasure trips with the family, are most likely to drive—but about 25 per cent of them go by train because they find it more comfortable and safer.*

● *Farmers like the comfort and safety of Pullman travel, too— but when traveling on business or pleasure 93 per cent of them go by automobile.*

These are some of the things the Pullman Company has learned from a comprehensive new travel study made by the advertising firm MacFarland, Aveyard & Co. The study, requiring six months to make and analyze, has given Pullman a fresh look at its entire market. It provides information on how people travel and why, and will be kept up to date by new studies from time to time.

Personal interviews and questionnaires were used in obtaining information for the initial study. Six specific groups were "researched"—business executives, passengers en route, farmers, small town residents, college students and factory workers. As a sort of bonus, ticket agents in 15 major cities were interviewed.

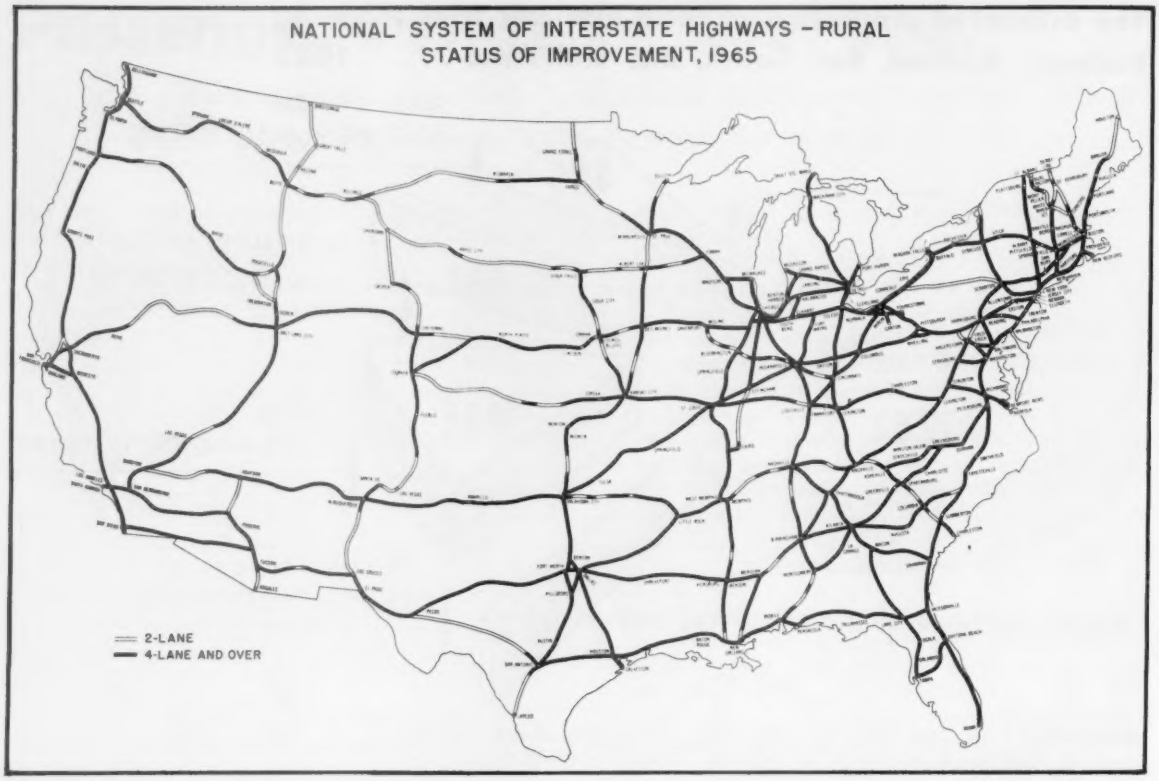
The results, reduced to statistical form, comprise a 200-page volume of knowledge about these segments of the travel market. They are being used to guide the two-pronged advertising campaign now being run by Pullman—one directed at the general market and the other specifically at the businessman-traveler.

Some conclusions from the study are evident. Most important, it points to a great untapped Pullman market riding the nation's highways. If Pullman and the railroads could capture even a small share of this going business, it would fill all the trains in the country.

Businessmen in Motion

Not counting the traveling salesman, who is always on the go, how much does the average businessman actually travel? And how does he get there?

To get answers to such questions, representatives of the Pullman advertising agency interviewed 1,009 executives



U. S. BUREAU OF PUBLIC ROADS

FEDERAL HIGHWAY PLANS call for this vast network of improved intercity routes within the next ten years. Railroads will have to compete with the system—after railroad taxes have helped build it.

in 14 cities, coast to coast. They found, for one thing, that about 64 per cent of these men make over 10 business trips a year (trips 200 miles or more, with going and return considered as two trips). They also found that nearly 60 per cent prefer to go by first-class plane on such trips, simply because of speed.

Pullman travel runs second. About 24 per cent of the men said they prefer railroad sleepers and they cited more than a dozen reasons. Automobiles create less stir among businessmen travelers than in any other bracket. But even here they do very well. About 12 per cent of the businessmen interviewed said they like the personal convenience of taking the car, and, significant perhaps, they like to have the car for use at destination.

Vacation travel is quite another matter. Seventy per cent of the businessmen questioned drive on pleasure trips. They say they do so for convenience and because they are free from schedule worries. Apparently very few find auto travel restful, relaxing or safe—clues that Pullman will no doubt find useful. As it now stands, neither Pullman nor the air lines get as much as 20 per cent of this travel business; coach planes and railroad coaches aren't getting a big share either.

Time and distance are, of course, big factors in why one method of transportation is selected over another. For example, preference for air travel seems to go up as trips get longer. But, on pleasure trips at least, automobiles account for 30 per cent of the travel at distances beyond 1,000 miles. Since Pullman can best the long-distance automobile on both speed and safety, this looks like a market worth going after.

The business traveler apparently makes more use of air line speed than anyone else. So the interviewers for Pullman set up a rating test. Executives were asked to rate Pullman and air-line travel, side by side, on such matters as convenience in taking trip, convenience while traveling, safety, reliability, comfort, speed and service. Pullman got a "high" rating on everything but speed; air lines made their poorest showing on reliability. Nearly 50 per cent of these businessmen fliers say they are riled by flight cancellations.

Credit cards are popular on the air lines, and their use was reported by 54.9 per cent of the business firms represented in the study. In answer to a specific question, a sizable 41.4 per cent of the men interviewed said they would like similar cards for Pullman and railroad travel.

To sample the opinions of passengers en route, the agency interviewers moved in on airports, railroad sta-

LOOKS LIKE SCRABBLE, but it's the L&N way of pointing up the comfort and leisure of rail travel.

tions and bus depots. They talked to 904 intercity travelers, both men and women, in 14 large cities. The 313 railroad customers interviewed included 93 Pullman and 220 coach passengers.

This "urban station" study seemed to confirm existing opinion, rather than uncover new trends. Pullman partons said they use the service because of comfort; coach and bus riders said they were attracted by low fares, and air line passengers again cited speed. As might be expected within this group, relying basically on public transportation, the automobile got less mention. Even so, about half the people interviewed reported taking automobile trips during the preceding 12 months.

As was the case with the business travelers, the waiting-room interviews showed that distance affects the manner of travel. Preference for coach or bus decreased as miles increased. Pullman preference idled along at 11.2 per cent for trips up to 500 miles. It jumped to 29.1 per cent for trips between 500 and 1,000 miles.

A major problem the Pullman Company faces is getting people to try its service the first time. Those who do use it are loyal, but there seem to be large numbers of travelers who have never even sampled a Pullman ride. The question was put to travelers by the interviewers and 500 out of 904 persons said they had never ridden Pullman.

A surprising thing, perhaps, about these never-ever Pullman riders is who they are. Among first-class plane passengers interviewed, 45.9 per cent said they have never ridden Pullman. Neither had two-thirds of the railroad coach passengers. Certainly, with these people at least, it is not a lack of opportunity.

Answers vary widely on why these people never go Pullman. Some said they never had need to. But nearly 25 per cent thought this type of transportation too expensive. And they cited hearsay evidence that it's difficul to sleep and the rides are uncomfortable. Some stated flatly they prefer "other transportation." Interestingly enough, 83 per cent of those who had never used Pullman said they had heard no criticism of the service from friends or relatives. How these people developed their attitudes, then, is a good public relations question.

The passengers en route were asked to rate the merits of the different means of travel. Pullman got top score on such things as comfort, safety and dependability. Automobiles were high in convenience in leaving on trips and while traveling. Air travel got a heavy vote for speed, but was well below Pullman on comfort and dependability. Both bus and coach service got high billing for "low travel cost."

To Campus and Green . . .

College students and residents of small towns seem to have common interests when it comes to travel. They nearly all drive; railroad coach travel is their second choice and most have never traveled Pullman in their lives.

To get these views, interviewers talked with 941 undergraduate students in 21 colleges and universities, and, in a separate effort, obtained replies to questionnaires from 711 residents of towns under 10,000 population.

Nearly 40 per cent of the 941 college students make at least four round trips a year between home and school. They are automobile-minded to the extent of 68.2 per cent. The best rail showing is in coach travel, which is

FREEDOM TO WORK en route is often cited by businessmen as a reason for going Pullman.

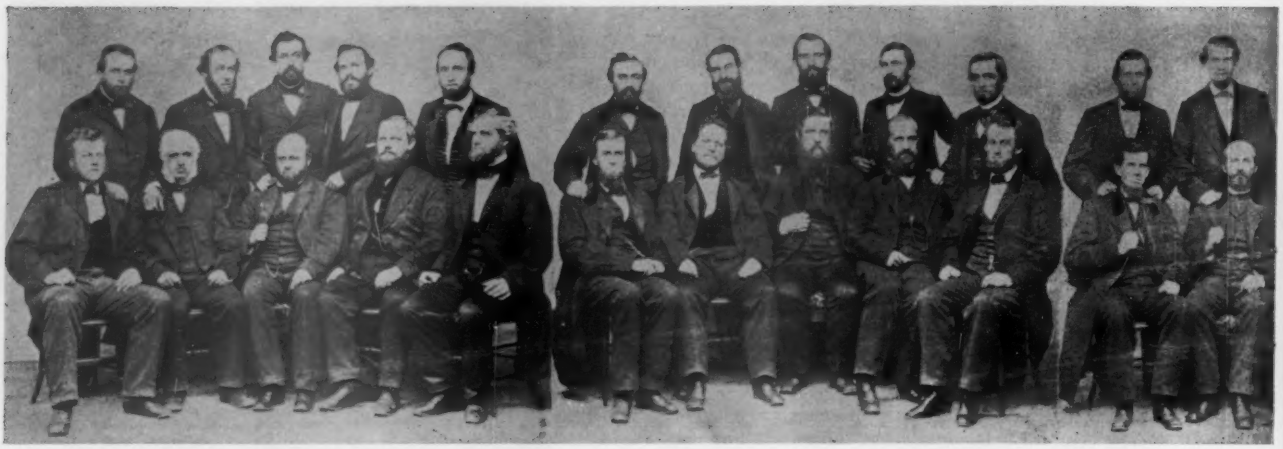
used most frequently in the distance brackets of 200 to 400 miles. Most students, meanwhile, make their own decisions on how they'll travel. They give top importance to these factors in making up their minds: Speed, cost, comfort, safety, amount of luggage permitted, dependability, fringe expenses, companionship and location of station.

The small-town resident finds almost indispensable the automobile which he uses on 90.9 per cent of his pleasure trips and in 66.1 per cent of his business travel. Convenience—the ease of coming and going when he wishes without bothering about schedules—this is what he most often cites as a reason. Other things, like comfort and economy, are also mentioned, but he doesn't put much stock in them. His pleasure trips are made mainly in the summer, June, July and August, and about 88 per cent of the time two or more persons go along.

Among the small-town residents who took trips of 200 miles or more in the year prior to the interview, 7.9 per cent traveled by coach. Only 3.4 per cent went Pullman, and first-class plane travel was on the bottom. Less than 2 per cent of these people flew.

Two figures stand out among all the replies from college students and residents of small towns. A total of 82.5 per cent of the students reported they have never traveled Pullman, and more than half of these said, really, they don't know why. The residential group was slightly better. Only 76.9 per cent of them said they had never gone Pullman.

(Continued on page 160)



THIS BEARDED COLLECTION of general ticket agents gathered in New York on March 19-21, 1862, for the seventh annual meeting of the National General Ticket Agent's Association. High on the agenda: Military traffic.

A Century of Success for AAPTO

A hundred years have passed since that March day in 1855 when railroad passenger officers first met to discuss their common problems—Today, they can look back with pride on . . .

The year 1855 does not stand out with particular sharpness in the whole of American history. Franklin Pierce, a quiet New Englander, was President. The catastrophe of war, still not certain, was a good six years away. There was dissension and turmoil in America that year, but much of it could be laid to "growing pains." Immigrants were pouring in, the population was moving westward, and a youthful but hardy railroad industry was fast becoming the dominant feature of American commercial life.

. . . *Strader . . . Burnett . . . Fifield . . . Phelps . . . Meyers . . . Follett . . . Kimball . . . Folger . . . Johnson . . . Ralston . . . Barr . . .*

This bustling railroad industry of 1855 was growing like a weed. There were in all probably 400 railroad companies. More than 18,000 miles of railroad line extended from the Atlantic seaboard as far west as St. Louis and Chicago. Even with this start, however, the field was barely tapped. The big expension lay ahead. There was, in the meantime, no end of troublesome problems, and many of these already cried for solution.

. . . *Patrick . . . Carpenter . . . Leland . . . Barnes . . . Dadmun . . . Ford . . . Dorsey . . . Kimball . . . Boyd . . . Atmore . . .*

The single problem of ticketing, for example, was immense. Everywhere, local printers prepared tickets, never to the same style or standard. Often they could easily be imitated. Many travelers never bought tickets at all, but gambled on their ability to outwit the conductor and avoid paying full fare. Moreover, the public was demanding through tickets over whole groups of railroads, to end the rebuying that was necessary at every junction. The arrangements for checking trunks, also a job to do over at every terminal, was the source of great complaining.

Such common problems as these led to that first gathering of railroad ticket agents in March 1855. Twenty men, representing as many railroads, met together at Pittsburgh. Out of that meeting came an organization—The General Ticket Agents' Association—which has survived wars, depressions, regulation and name-changes to emerge today as the oldest railroad society in America. We know it now as the American Association of Passenger Traffic Officers.

. . . *Wentworth . . . Pierson . . . Boylston . . . Shattuc . . . Wilson . . . Tuttle . . . Taylor . . . Abbott . . . Atmore . . . Taylor . . .*

A hundred years is a long time, no matter which end of the span you choose to inspect. When members of the AAPTO meet this fall in Quebec for their 92nd Annual Meeting—they missed a few because of wars and depressions—they will have just cause to be proud of their organization and its accomplishments. During the lifetime of this association the passenger traffic manager has

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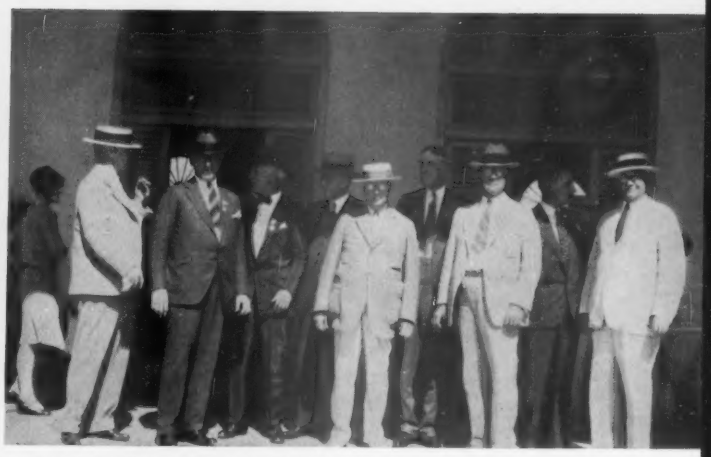
For their help in preparing this brief history, *Railway Age* is indebted to Fred H. Baird, president of the American Association of Passenger Traffic Officers; B. D. Branch, secretary-treasurer; and A. Cotsworth, the official archivist. Mr. Cotsworth is preparing a special exhibit for presentation at the annual meeting this fall in Quebec.



CLEAN-SHAVEN AND NATTIER, this group was part of the delegation that convened in Havana, Cuba, November 1-3, 1927.

emerged as a broad-minded and important executive in American railroad circles; and the complexity of his assignment today is something those early ticket agents hardly could have anticipated.

It can almost be said that the first ticket agents backed into their jobs. In those early years, as railroads grew, the vexing problem of selling and accounting for tickets, of advertising, and of making the rates themselves, came to require more and more time. Superintendents, with manifold duties already, were gradually relieved of this responsibility, and the general ticket agent came into being.

. . . Connor . . . Michaelis . . . McCormick . . . Hanson . . . Chandler . . . Anderson . . . Davidson . . . Flanders . . . Turk . . . Fee . . .

From its beginning in Pittsburgh a century ago, the passenger officers' association made steady progress. Meeting annually, its early members tackled conditions that bordered, in some cases, on the chaotic. Intense competition existed, particularly for long-haul business; rate-cutting was a mild word for the recurring price wars; advertising methods, often dealing in personalities, were nothing short of reckless.

Nowhere was there "outside" competition or regulatory authority to force unity or bring the unscrupulous into line. Those first years must have been tough ones indeed for the young association. But slowly, speeded in time by law and state authority, rates and schedules became stable; as established, Edward Hungerford once said, as the laws of the Medes and Persians.

. . . Daniels . . . Townsend . . . Wood . . . Ruggles . . . Whitney . . . Boothby . . . Smith . . . Stone . . . Taylor . . . Bell . . .

Those early problems eventually passed, only to be replaced by new ones. The Civil War, which cleaved the organization in half, was quickly forgiven if not forgotten. Meeting in Memphis in 1867, the membership resolved "that we are pleased to meet again a number of the Southern members of the association." That same year the new "Official Railway Guide" received an official blessing. Two years later, East and West were joined by the first transcontinental rail line. The country was still growing.

Throughout the ensuing fifty years, railroad passenger officers were busy. There were questions about payment

MENU.

Saddle Rock Oysters on Shell.

Green Turtle. Brunoise. Chicken Gumbo. Crab Bisque.

Boiled Lake Trout, a la creme. Baked Blue Fish, Madeira Sauce.
Broiled Spanish Mackerel, Saratoga Potatoes.
Brook Trout, Breaded a la Anglaise.

Leg of Mutton, Caper Sauce. Buffalo Tongue, Piquant Sauce.
Chicken, Celery Sauce. Turkey, Oyster Sauce.

Loin of Beef. Saddle of Southdown Mutton. Stuffed Loin of Veal.
Spring Lamb, Mint Sauce. Turkey, Cranberry Sauce. Ham, Champagne Sauce.
Spring Chicken, Giblet Sauce. Rib ends of Beef.

Beef Tongue. Pheasant Larded aux Truffes. Lobster Salad.
Mayonnaise of Chicken. Spiced Oysters. Pate de Foie Gras.

Fillet de Beuf Pique, aux Champignons. Lamb Currie with Rice.
Sweetbreads Larded, aux Petits Pois. Fresh Mushrooms, Stuffed.
Fillets of Chicken, aux Truffes. Timbal of Macaroni.
Apple Charlotte, a la Parisienne.
Mutton Kidneys, Grille, Madeira Sauce.

Punch a la Romain.

Saddle of Venison, with Jelly. Young Prairie Chicken.
Canvas-back Duck. Loin of Antelope, Vin d' Oporto. English Snipe.
Broiled Woodcock on Toast. Quail, Stuffed and Larded.
Broiled Teal Duck, with Olives.

Boiled Potatoes. Mashed Potatoes. Baked Sweet Potatoes.
Stewed Tomatoes. Fried Egg Plant. Lima Beans.
Green Corn. Cauliflower. Green Peas.
Turnips. Squash. Asparagus.

English Plum Pudding, Brandy Sauce. Lemon Meringue Pie.
C. B. & Q. Pudding, Hard Sauce. Latour Blanche Jelly.
Apple Pie. Cranberry Pie. Omelet Souffiee. Italian Cream.
Fruit Cake. Macaroons. French Kisses. Fruit Jelly.

Vanilla and Strawberry Ice Cream. Neapolitan Cream.
Figs. Apples. Oranges. Nuts. Raisins. Grapes. Bananas. Pears.

Tea. Coffee.

BREAKFAST AND SUPPER TO ORDER.

ALL MEALS 75 CENTS.

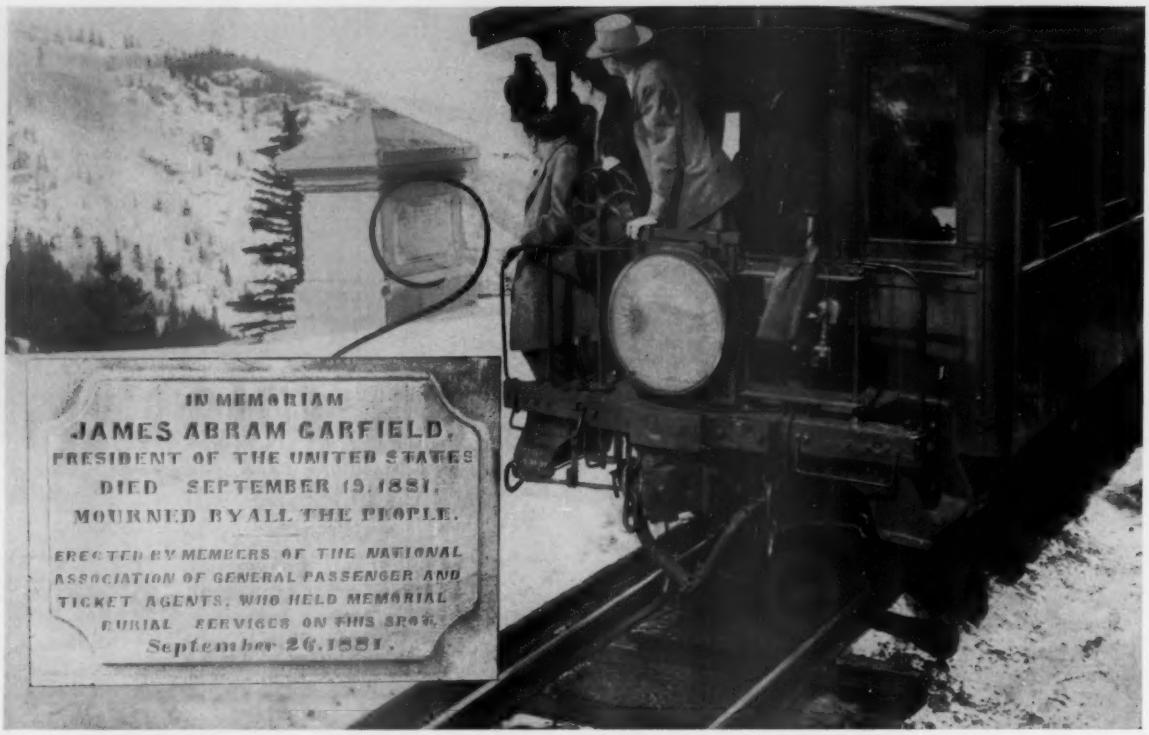
NOTE— Choice Wines, Liquors and Cigars imported direct by the Burlington Company always on hand in the Dining Cars.

DINNER IN THE DINER was a thrill, even then. Look what 75 cents would buy in the middle 'Eighties.

of commissions to outside agents, about handling the unending flow of immigrants, about prosperity peaks and depression depths. Ticket scalping, ticket forging, and then the rise of new and formidable competition—first traction lines, then automobiles, buses and airplanes.

. . . Hatch . . . Moody . . . Cairns . . . Wallace . . . Craig . . . Fort . . . Hilton . . . Burt . . . McCarty . . . Black . . .

As jobs grew bigger, names were changed. The very title, general ticket agent, began to disappear, replaced by something bigger, the general passenger agent. Soon


IN MEMORIAM
JAMES ABRAM GARFIELD,
PRESIDENT OF THE UNITED STATES
DIED SEPTEMBER 19, 1881,
MOURNED BY ALL THE PEOPLE.
ERECTED BY MEMBERS OF THE NATIONAL
ASSOCIATION OF GENERAL PASSENGER AND
TICKET AGENTS, WHO HELD MEMORIAL
BURIAL SERVICES ON THIS SPOT,
September 26, 1881.

PRESIDENT JAMES A. GARFIELD died in September 1881, while members of the general passenger and ticket agents association were on an inspection tour of the Denver & Rio Grande Western. They stopped for memorial services beside the tracks, later erected a monument to mark the spot.

the g.p.a. began to give way to the passenger traffic manager, the title known and used today.

These changes were reflected, of course, in the organization itself. The word "National" soon was prefixed to the original name. Later, the organization became the National Asssociation of General Passenger and Ticket Agents; then in 1889 the American Association of General Passenger and Ticket Agents. Finally, in 1914, the present name, American Association of Passenger Traffic Officers, was adopted. The association's Fraternal Society was originated in 1901. Since 1911, only two men, W. C. Hope and B. D. Branch, have served as secretary of AAPTO—Mr. Hope from 1911 to 1936, and Mr. Branch since then.

. . . Russell . . . Francis . . . Smith . . . Ryan . . . Calloway . . . Landman . . . Coratzar . . . Allen . . . Rahner . . . Melanson . . .

After World War I the new competition began to crowd in, pushing different problems to the fore. The motor vehicle and the airplane, starting slow but picking up momentum through the Thirties and breaking out all over after World War II. They still constitute difficult questions, and sometimes no answer is apparent.

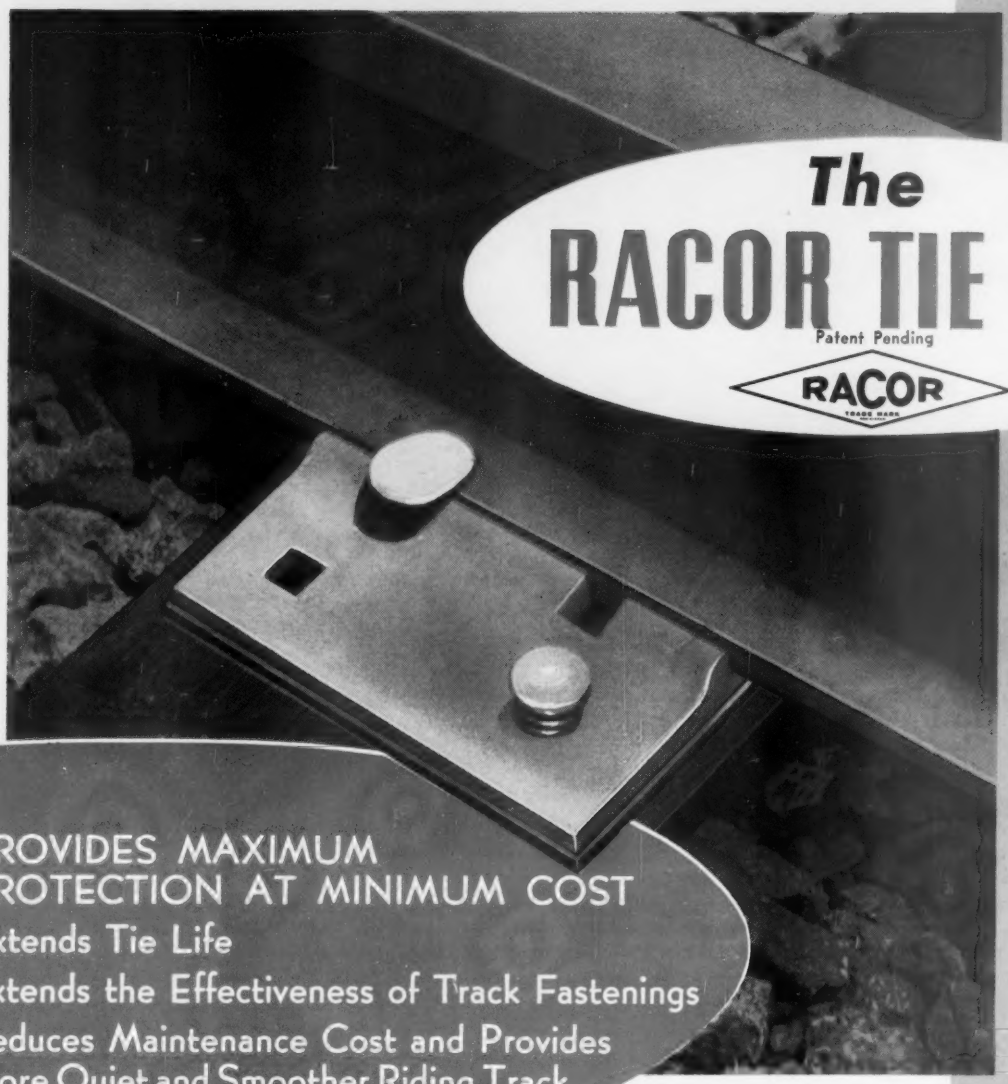
The AAPTO first missed an annual meeting in 1918, then again in 1932, 1933 and 1942. Actually, no full-scale meetings were held from November 1941 until February 1946, but there were special meetings from time to time to transact essential business. During those intervening war years, the accomplishments of railroad passenger men stand recorded as one of the greatest of all achievements of American industry.

. . . Mathews . . . Bell . . . Dickinson . . . Howard . . . James . . . Bartlett . . . Switzer . . . Bonter . . . Thomson . . . Lanigan . . .

The association's meeting at Chicago in 1931 concluded without inkling of the dark days just ahead. The economy collapsed almost before the members got home; and it was a somber group that met again three years later in St. Louis. Yet even in those gloomy days there was hope. Records of this meeting disclose the first discussion of what was to be a whole new era—"the streamlined trains with which the Union Pacific and the Burlington have just astonished the world." These trains were to spark a resurgence in railroad transportation, putting the railroads, in one grand swoop, back in the thick of competition. Long before World War II, this new concept was widely adopted and passenger service was fast rebuilding.

In a record so condensed it is of course impossible to touch on all the achievements in an association's century of busy life. Problems that presented themselves to the passenger officers during these years were seldom easy of solution. Nor are those today. But the practical railroad men who are members of the AAPTO still look with confidence to the future. Facing difficulties, however grave or intricate, is nothing new to them. They can measure back a hundred years of solid achievement, years from which they take pride and satisfaction. For no question about it, their contribution to railroading, and in a larger sense to their country itself, has been real and lasting.

. . . McCarthy . . . Jenkins . . . Cotsworth . . . Osterhout . . . Bell . . . Goebel . . . Baker . . . Whittington . . . Peterson . . . Baird . . .



The RACOR TIE PAD

Patent Pending

RACOR

★ PROVIDES MAXIMUM PROTECTION AT MINIMUM COST
★ Extends Tie Life
★ Extends the Effectiveness of Track Fastenings
★ Reduces Maintenance Cost and Provides More Quiet and Smoother Riding Track

The RACOR TIE PAD is recommended for use in locations where severe tie wear prevails and is particularly economical when used on expensive railroad ties or bridge timbers. It is a rubber-fibre compound, molded under heat and pressure, possessing a high tensile strength and capable of maintaining its physical properties under heavy traffic loads — yet is sufficiently flexible to adapt itself to the irregular surfaces of ties. ALL RACOR TIE PADS are coated with a special sealing compound that seals the pad to the tie, providing maximum protection by preventing the entrance of moisture and abrasives that accelerate the early deterioration of the tie. The RACOR pad also contains a fungicide which prevents the deterioration of the pad. Intensive research and many years of experience in manufacturing this type of product has given us the "know-how" to produce a material of the very highest quality at the lowest cost.

Exhaustive tests on the TIE WEAR MACHINE show the RACOR TIE PAD to be most effective and economical in preventing the mechanical abrasion of railroad ties and bridge timbers. Actual field performances also prove that tie life is definitely prolonged when pads are applied to ties in curves, turnouts and bridges. When used under insulated joints the life of the insulation is extended and joint maintenance is reduced.

The low price of the RACOR TIE PAD permits its economical use where all such applications are made.

Contact your nearest RAMAPO representative for further information.

AMERICAN Brake Shoe COMPANY

RAMAPO AJAX DIVISION

109 North Wabash Avenue, Chicago 2, Ill.

America's most complete Line of Track Specialties

RACOR SNOW BLOWERS

RACOR STUDS

AUTOMATIC SWITCH STANDS

TYPE M & MJ VERTICAL SWITCH RODS

SAMSON SWITCH POINTS

SWITCH POINT LOCKS

RAIL LUBRICATORS

ADJUSTABLE RAIL BRACES

DEPTH HARDENED CROSSINGS

REVERSIBLE MANGANESE STEEL CROSSINGS

MANGANESE STEEL GUARD RAILS

MANGANESE STEEL SWITCH POINT GUARD RAILS

Write for descriptive folder.

Sales Offices: **New York, N. Y.; Buffalo, N. Y.; Cleveland, Ohio; St. Louis, Mo.; Houston, Tex.; Denver, Colo.; San Francisco, Cal.; Niagara Falls, Ont., Canada.**

Plants: **Chicago Heights, Ill.; E. St. Louis, Ill.; Buffalo, N. Y.; Superior, Wis.; Pueblo, Colo.; Los Angeles, Cal.; Niagara Falls, Ont., Canada.**

NOBODY HOME. One railroad's study showed recently that the industry had 22,146 "no shows" and late cancellations in a single month.

Wanted: Passengers Who Stick

Railroads and the Pullman Company are trying to reduce late cancellations and "no shows"—They know the practice is costly

The late cancellation of Pullman tickets continues to be the subject of careful study by passenger officers, despite recent moves aimed at bringing the situation under tighter control. These last-minute cancellations are responsible, in many cases, for needless car-miles. They have an adverse effect on revenues. Equally important, today's Pullman passenger gets disgruntled quickly if after he has been unable to get desired space in advance he finds, once under way, that there is space to spare.

Passenger officers are in general agreement on the nature and size of this problem. But opinions differ as to its cause and cure. Eastern roads, for example, need more rigid rules than other areas. Discussions on why the problem arises in the first place tend to place much of the blame on the practice of making "standby reservations" by rail.

J. J. Nolan, vice-president of traffic of the Pullman Company, has expressed the opinion that part of the trouble lies with companies which, over the years, have developed the habit of purchasing a set amount of space daily to meet any needs that may arise. "Some companies overestimate their needs on a day-to-day basis, with the result that they have had to turn back unused space," Mr. Nolan said in discussing the problem with *Railway Age*. Such cancellations often come too late for the space to be resold before train departure.

At least one large Western railroad has recently been engaged in a train-by-train analysis to pinpoint *why* passengers with reservations cancel at the last minute or fail to show up at all. The findings should throw needed light on the whole problem. Meanwhile, a 14-man committee of railroad and Pullman officers, headed by Mr. Nolan, has been at work on the matter since mid-1954. It was this committee's recommendations that led to tighter rules becoming effective in the East last December 1. The volume of late cancellations in this territory, particularly on principal trains, was most acute.

Alerting customers to the new regulations has been a time-consuming and, at times, difficult job. Initially, a statement signed by the Pullman Company was prepared for ticket agents to insert in ticket envelopes: "In large measure," the notice reminded travelers, "these (new) rules permit of refund on tickets only where the space reserved is released before the day of departure of train, or on the second day before departure in the case of train departing after midnight and prior to 5 a.m.

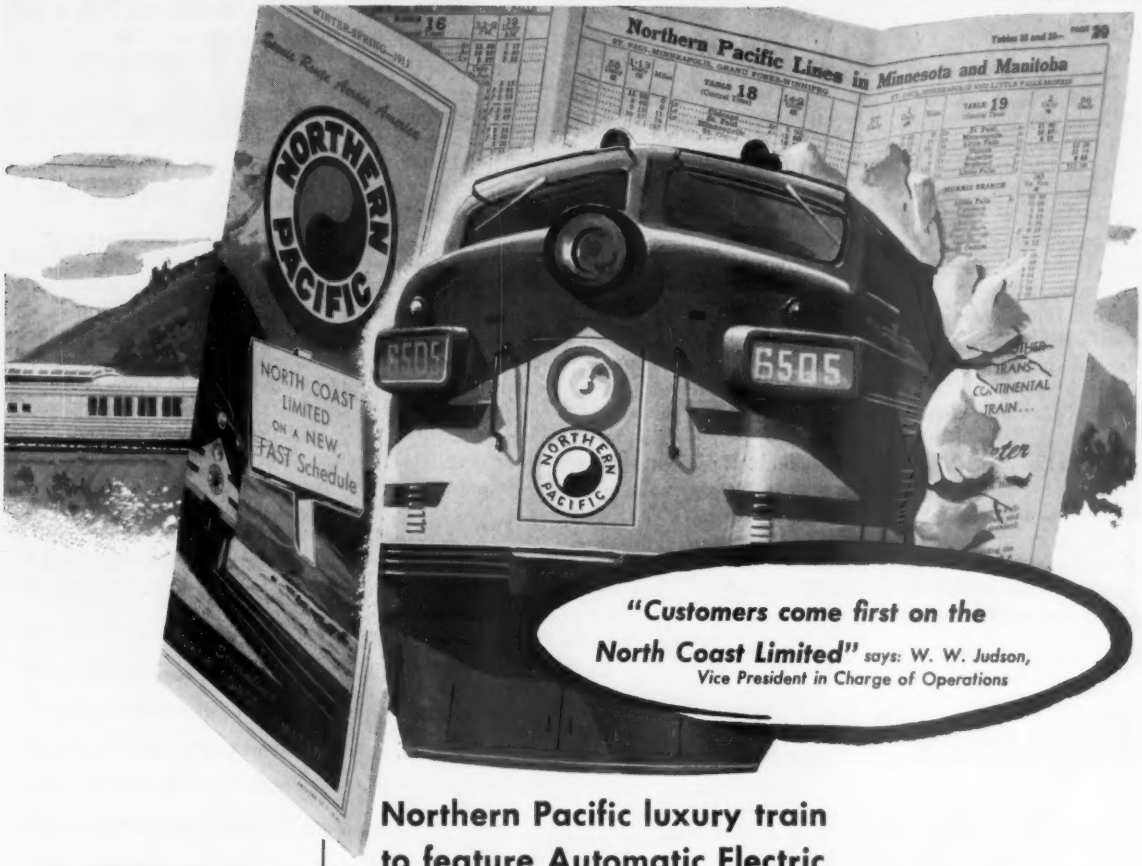
"Under certain conditions, tickets for space which is released on the day of but not less than one hour before train departure will be exchanged . . . for corresponding trips commencing not more than seven days later. In no case will tickets issued in exchange be redeemed or again be exchanged."

Complaints about the new arrangement in the East have not been infrequent. Part of the reason may be that passengers are growing immune to messages stuffed in their ticket envelopes. Also, it has tended to restrict long-standing practices of the type Mr. Nolan described above.

The Pullman Company has continued to urge that all selling forces fully understand the new rules, and that the special notices be given widest possible distribution to passengers.

The long range effect of the new rules, Pullman officers believe, will be beneficial. Of course, there has already been, in the past five months, a better revenue showing on tickets turned in for refunds. But the real benefit, they feel, lies in the realm of customer relations. Space selling can be handled more carefully, and chances of losing a passenger or creating a dissatisfied one because of space handling have been substantially reduced.

AUTOMATIC ELECTRIC COMPANY — A GREAT NAME IN COMMUNICATIONS


NORTHERN PACIFIC
NORTH COAST LIMITED ON A NEW, FAST Schedule
Northern Pacific Lines in Minnesota and Manitoba
6505
"Customers come first on the North Coast Limited" says: W. W. Judson, Vice President in Charge of Operations

Northern Pacific luxury train to feature Automatic Electric

INTRA-TRAIN TELEPHONES

"Every provision for customer convenience and safety has been included in our planning for the North Coast Limited," reports Northern Pacific's Vice-President in Charge of Operations, W. W. Judson.

Passengers riding on this crack streamliner between Chicago and the North Pacific Coast will enjoy on-the-train services second to none. And Automatic Electric Intra-Train Telephones, when installed, will be in keeping with the modern Vista-Dome cars and other luxury appointments being planned for the N. P. Streamliner.

Members of the train crew can keep in quick contact with each other via the intra-train dial telephones. The conductor can issue instructions quickly—based on information obtained first-hand by Intra-Train Telephone. This all adds up to better service for the passengers.

For added convenience, safety and operating efficiency, plan for Automatic Electric Intra-Train Telephones. We will supply complete engineering details for the installation you are considering. Write: Automatic Electric Sales Corporation, 1033 W. Van Buren St., Chicago 7, Illinois.

Can be installed on trains now in service, too.

Only 6 wires of train line required. Each station is an independent unit. Operates on 32, 64 or 110 volts dc. Resistant to dust and excessive vibration.

New 16-page, illustrated circular on Intra-Train Telephones now available—write for Cir. 1822.

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Makers of Telephone, Signaling and Communication Apparatus . . . Electrical Engineers, Designers and Consultants

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Automatic Electric Sales Corporation . . . 1033 West Van Buren Street, Chicago 7, U.S.A.
In Canada: Automatic Electric Sales (Canada) Limited, 185 Bartley Drive, Toronto 16, Ontario
Export Distributors: International Automatic Electric Corporation, Chicago

PULLMAN LOOKS AT ITS MARKET

(Continued from page 153)

The "blue collar" workers inside the nation's factories are probably more safety-minded than average. And it crops up in their travel likes and dislikes. About 75 per cent of those interviewed said they make long trips by auto, but they complained about the traffic and, along with other things, the safety hazard.

Coach travel ranked second with this group, mostly for reasons of comfort and safety. Since they give these two items top consideration in planning trips, careful selling might produce new business among such travelers.

The farm travel market seems almost completely dominated by automobiles. The interviewers queried farm families in 40 states and uncovered evidence that such families are quite highway-minded. The freedom and convenience of automobile travel leads 93.5 per cent of them to drive. Only 5.8 per cent reported going by coach in the year preceding the poll, and 2.2 per cent said they went Pullman. A sizable 88.7 per cent said they had never used Pullman service.

As many as 25 per cent of the farm families questioned said they live more than 11 miles from an airport, railroad station or bus depot. Two-thirds live between one and ten miles away.

One purely hypothetical question put to the rural group was this poser: If fares were equal, how would you prefer to travel? Pullman edged out first-class plane travel by a whisker. Preference for Pullman was 33.4 per cent, for air 33.2 per cent. Coach travel was third, 9.2 per cent, and the buses fourth with 9 per cent. The nature of the question was such, however, that autos were eliminated from the competition.

Ticket Agents Report

Field investigators for MacFarland, Aveyard dropped in on 47 ticket agents in 15 cities, all major Pullman markets. These agents were in position to "sell" 31 different railroads. Their remarks indicate that in almost every case, the customer has made up his mind about how he will travel before he arrives at the ticket window. Among the undecided ones, the agents differ on how many could be persuaded to buy Pullman. A good many believe fewer than 10 per cent.

Nor do the agents like to "high pressure" customers. Sixty-one per cent said they do not attempt to sell Pullman if a patron asks for a coach ticket. Some say they are too busy to "sell" anything, and others say they try to size up the situation by looking over the customer. Too, length of trip is a factor.

Figures Worth Having

Here are 1954 results in one place, easy to file. You'll find train-miles, car-miles, coach and sleeping car revenues, railroad and air line passenger fatalities, mail payments, and military passenger traffic

PASSENGER OPERATING STATISTICS OF LARGE STEAM RAILWAYS—SELECTED ITEMS FOR THE CALENDAR YEAR 1954 COMPARED WITH 1953

Region, road and year		Train-miles	Passenger-train car-miles	Passenger-train cars per train	Percent unserviceable of total locomotives	Train miles per train hour	Locomotive miles per locomotive day
New England Region:							
Boston & Maine	1954	6,055,976	32,603,012	6.1	13.9	33.8	106
	1953	5,975,336	33,930,558	6.2	16.7	33.1	103
N. Y., New H. & Hartford	1954	10,243,894	76,678,148	9.0	6.8	38.5	246
	1953	10,127,591	79,360,656	9.3	4.7	38.4	256
Great Lakes Region:							
Delaware & Hudson	1954	859,365	6,223,847	7.2	....	33.9	119
	1953	911,709	6,565,483	7.2	8.7	32.7	110
Del., Lack. & Western	1954	3,809,546	26,799,339	9.0	....	34.0	261
	1953	3,873,107	27,183,109	8.9	4.8	33.6	278
Erie	1954	3,946,801	32,660,712	8.3	1.4	37.1	149
	1953	4,078,648	34,381,336	8.4	2.7	37.1	156
Grand Trunk Western	1954	1,175,430	10,156,891	8.6	28.0	37.3	134
	1953	1,215,523	10,964,811	9.0	25.0	36.1	144
Lehigh Valley	1954	1,411,020	12,180,314	9.1	....	39.7	546
	1953	1,419,208	11,984,378	8.9	....	39.0	548
New York Central	1954	31,423,313	348,388,129	11.7	9.9	39.6	206
	1953	33,833,636	373,944,444	11.6	19.4	39.6	183
New York, Chi. & St. Louis	1954	1,175,037	8,835,653	7.5	7.1	41.6	234
	1953	1,174,609	8,870,835	7.6	6.7	41.4	219

(*Continued on page* 162)

PROVEN on the job!

SATISFIED CUSTOMERS COMING BACK FOR MORE

mean only one thing—a machine that does the job better and pays for itself in less than one year. That's why Kershaw Manufacturing Company's business has tripled in the last four years. Seventy per cent of its current orders are repeat orders from people who have bought Kershaw products, tried them, like them, and buy more.

Look at these figures on repeat orders.

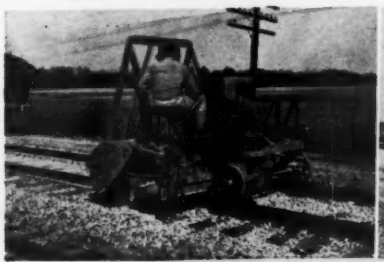
MACHINES PURCHASED IN

	1951	1952	1953	1954	1955	TOTAL
RAILROAD A	1	3	5	1	2	12
RAILROAD B	2	2	4	6	3	17
RAILROAD C	8	2	5	3	?	18
RAILROAD D	8	6	27	8	12	61

If you haven't tried a Kershaw machine, write for a free demonstration today!

KERSHAW
MANUFACTURING CO. INC.
MONTGOMERY K ALABAMA

These Three Machines Were Developed for YOUR Surfacing Gangs!



TRACK BROOM

Sweeps cinders, slag, stone, ore and other car drippings onto conveyor, or places between track for loading into car or trucks. Also used to remove loose ballast between rail after track is surfaced.

BALLAST REGULATOR, SCARIFIER AND PLOW

Most versatile machine on market. Scarifier deweeds, regulates and removes excess ballast in center of track.

JACKALL

Used in track surfacing gangs. Takes place of all hand jacks normally used in raising track.

FIGURES WORTH HAVING (*Continued from page 160*)

Region, road, and year		Train-miles	Passenger-train car-miles	Passenger-train cars per train	Percent unserviceable of total locomotives	Train miles per train hour	Locomotive miles per locomotive day
Pitts. & Lake Erie	1954	382,465	2,303,271	6.0	11.1	37.6	125
	1953	395,289	2,494,113	6.3	11.1	37.3	130
Wabash	1954	2,650,876	21,919,594	8.3	....	41.9	414
	1953	2,659,633	21,886,387	8.2	7.1	41.5	268
Central Eastern Region:							
Baltimore & Ohio	1954	10,072,628	89,384,530	9.1	12.6	41.5	234
	1953	10,697,817	96,651,711	9.2	16.6	40.4	204
Bessemer & Lake Erie	1954	39,536	79,815	2.0	....	28.4	108
	1953	39,984	82,634	2.1	....	28.4	37
Central of New Jersey	1954	2,152,515	13,263,011	6.3	8.3	30.3	97
	1953	2,255,489	13,936,297	6.2	13.7	28.4	89
Chicago & Eastern Ill.	1954	1,511,249	13,369,836	8.9	7.7	43.0	333
	1953	1,517,009	14,510,826	9.6	7.7	43.3	335
Long Island	1954	6,213,574	50,151,434	7.4	15.4	26.7	132
	1953	6,247,171	50,103,962	7.2	16.2	27.3	139
Pennsylvania System	1954	30,803,251	370,511,665	13.0	22.2	44.3	175
	1953	33,088,306	398,550,162	12.9	19.4	44.6	159
Reading	1954	3,538,395	17,973,992	7.1	10.0	33.1	130
	1953	3,628,584	18,195,266	7.1	7.3	32.9	127
Western Maryland	1954	179,336	439,743	2.5	....	24.1	124
	1953	217,234	579,849	2.7	....	25.0	86
Pocahontas Region:							
Chesapeake & Ohio	1954	3,793,042	34,090,647	9.5	24.0	35.4	197
	1953	3,817,927	35,425,135	9.8	20.4	34.6	184
Norfolk & Western	1954	3,049,928	25,421,353	8.3	5.1	36.1	221
	1953	3,171,693	27,651,262	8.7	4.9	35.7	220
Southern Region:							
Atlantic Coast Line	1954	6,986,534	84,964,957	12.2	3.8	43.1	372
	1953	7,183,717	88,486,082	12.3	5.9	42.3	390
Central of Georgia	1954	1,454,138	11,806,664	8.1	....	41.8	266
	1953	1,682,051	13,429,826	8.0	....	40.3	231
Gulf, Mobile & Ohio	1954	1,904,952	16,511,415	9.3	10.5	43.1	251
	1953	2,364,500	18,811,596	9.5	5.3	41.1	266
Illinois Central	1954	8,247,451	80,888,532	11.7	8.5	38.2	288
	1953	8,493,266	85,224,472	11.9	10.2	37.8	300
Louisville & Nashville	1954	6,779,112	63,877,242	9.4	5.9	38.1	366
	1953	7,087,862	66,930,247	9.5	4.6	37.2	300
Nashville, Chatt. & St. Louis	1954	1,200,422	11,711,563	9.8	....	36.9	209
	1953	1,264,560	12,467,010	9.9	6.3	37.0	221
Seaboard Air Line	1954	5,669,902	59,194,316	10.6	8.6	43.4	438
	1953	5,933,010	64,395,304	11.0	9.8	43.2	392
Southern	1954	8,359,786	81,306,944	9.7	....	34.4	326
	1953	8,795,542	88,469,712	10.4	3.7	33.8	287
Northwestern Region:							
Chi. & North Western	1954	10,320,615	89,907,365	8.8	22.9	39.4	165
	1953	10,543,313	90,609,709	8.7	23.1	39.0	159
Chicago Great Western	1954	840,670	3,845,012	4.6	....	31.9	331
	1953	739,752	4,239,565	5.7	....	30.6	291
Chi., Milw., St. P. & Pacific	1954	9,181,453	80,059,346	8.8	7.3	41.5	260
	1953	9,387,229	85,737,605	9.3	10.4	41.0	264
Chi., St. P. Minneapolis & Omaha	1954	1,311,539	10,651,332	8.1	13.3	36.9	242
	1953	1,384,164	11,213,144	8.2	38.1	37.7	178
Duluth, Missabe & Iron Range	1954	90,758	95,290	2.4	33.3	29.1	3
	1953	119,664	203,528	3.1	16.7	27.8	18
Great Northern	1954	7,377,643	72,946,159	10.6	2.3	39.8	429
	1953	7,911,427	75,998,927	10.4	2.0	38.9	407
Minneapolis, St. P. & S. St. Marie	1954	2,276,352	13,567,292	6.0	23.8	32.4	151
	1953	2,575,471	14,756,635	5.7	12.5	32.9	179
Northern Pacific	1954	5,957,790	52,437,108	9.9	7.7	38.0	280
	1953	6,153,840	52,616,913	9.8	14.0	37.7	259
Central Western Region:							
Atch., Top. & S. Fe (incl. G. C. & S. F. and P. & S. F.)	1954	22,017,145	247,361,740	12.1	5.0	47.0	471
	1953	23,666,405	266,929,148	12.2	6.2	45.1	417
Chi., Burl. & Quincy	1954	12,102,298	101,246,717	8.8	4.9	43.8	386
	1953	12,445,025	106,569,095	9.1	7.1	43.4	375
Chi., Rock I. & Pacific	1954	9,618,428	79,975,232	8.8	3.8	40.6	318
	1953	10,083,813	82,535,731	8.5	2.4	40.3	328
Denver & R. G. Western	1954	1,605,913	13,777,631	8.6	20.0	36.2	445
	1953	1,734,629	15,439,826	8.9	9.1	35.6	441

Region, road and year		Train-miles	Passenger-train car-miles	Passenger-train cars per train	Percent unserviceable of total locomotives	Train miles per train hour	Locomotive miles per locomotive day
Southern Pacific	1954	12,517,782	167,188,748	13.4	17.8	40.1	236
	1953	12,989,856	175,839,542	13.5	11.4	39.1	216
Union Pacific	1954	16,282,636	204,225,721	12.8	12.8	49.1	336
	1953	17,298,417	211,433,372	12.5	12.1	47.4	339
Western Pacific	1954	993,635	8,804,042	12.0	....	48.6	491
	1953	1,063,444	9,947,325	12.3	....	47.9	543
Southwestern Region:							
International Gt. Northern*	1954	1,042,760	8,837,915	8.5	....	39.1	408
	1953	1,227,738	10,090,891	8.2	10.0	39.7	336
Kansas City Southern	1954	1,573,783	9,969,531	6.3	....	43.7	533
	1953	1,592,126	10,802,863	6.8	....	43.4	401
Mo.-Kans.-Texas Lines	1954	2,757,475	24,513,171	9.0	....	38.9	399
	1953	2,869,763	24,971,254	9.1	4.3	38.1	330
Missouri Pacific*	1954	6,419,089	56,515,853	8.9	13.6	42.9	401
	1953	6,736,906	61,823,016	9.2	19.3	42.3	324
Texas & Pacific	1954	2,340,548	27,385,667	11.7	....	42.6	586
	1953	2,368,186	28,466,120	12.0	....	42.2	544
St. Louis-San Francisco	1954	4,058,336	32,241,756	7.9	3.6	36.3	400
	1953	4,248,679	34,061,408	8.1	3.1	35.8	361
St. Louis Southwestern Lines	1954	599,548	3,398,722	5.7	....	39.2	412
	1953	604,973	3,548,040	5.9	....	38.6	418
Texas & New Orleans	1954	2,808,902	33,969,018	12.1	12.5	42.1	484
	1953	2,980,621	36,175,385	12.1	24.1	41.9	284

*Report of trustee or trustees.
Source: Report M-200, Interstate Commerce Commission. Subject to revision.

DOME CARS OWNED BY DOMESTIC RAILROADS—MAY 1, 1955

Railroad	No.	Type Car	Year Delivered	Builder
Atchison, Topeka & Santa Fe	6	Lounge	1950	Pullman-Standard
	8	Lounge-Chair	1954	Budd
	6	Lounge-Chair-Dorm.	1954	Budd
	2	Double-Deck Coach	1954	Budd
Baltimore & Ohio	3*	Bedroom	1948	Budd
	2	Coach	1949	Pullman-Standard
Chicago, Burlington & Quincy	8	Coach	1947	Budd
	2	Parlor-Observation	1947	Budd
	7	Coach	1948	Budd
	3	Coffee Shop-Dormitory	1948	Budd
	3	Bedroom-Observation	1948	Budd
	2	Coach-Buffet Lounge	1952	Budd
	2	Parlor-Observation	1952	Budd
	1	Bedroom-Observation	1952	Budd
	2	Sleeping	1954	Budd
	2	Coach	1954	Budd
Chicago, Milwaukee, St. Paul & Pacific	10	Buffet	1952	Pullman-Standard
Denver & Rio Grande Western	4**	Coach	1948	Budd
	1	Coffee Shop-Dormitory	1948	Budd
	1	Bedroom-Observation	1948	Budd
Great Northern	22	Coach	†	Budd
International-Great Northern	1	Coach	1952	Pullman-Standard
Missouri Pacific	3	Coach	1948	Budd
	3	Coach	1952	Pullman-Standard
Northern Pacific	7	Sleeping	1954	Budd
	7	Coach	1954	Budd
Spokane, Portland Seattle	1	Sleeping	1954	Budd
	1	Coach	1954	Budd
Texas & Pacific	1	Coach	1952	Pullman-Standard
Union Pacific	1	Dining	1947	Pullman-Standard
	1	Coach	1947	Pullman-Standard
	1	Observation-Lounge	1947	Pullman-Standard
	1	Sleeping	1947	Pullman-Standard
	10	Coach	1954-55	ACF Industries
	10	Dining	‡	ACF Industries
	15	Observation	1955	ACF Industries
Wabash	3	Coach	1949	Budd
	1	Observation-Parlor	1950	Budd
	1	Coach	1952	Pullman-Standard
Western Pacific	7	Coach	1948	Budd
	2	Coffee Shop-Dormitory	1948	Budd
	2	Bedroom-Observation	1948	Budd

*Purchased from the Chesapeake & Ohio.
**Three purchased from the C & O.
†One delivered in April 1955; 21 still undelivered as of May 1.
‡Four delivered in April 1955; six still undelivered as of May 1.
Source: American Railway Car Institute.

PASSENGER FATALITIES

	Per Billion Passenger-Miles			
	Railroads*		Domestic air lines	
Year	Number of passenger fatalities	Rate per billion passenger-miles	Number of passenger fatalities	Rate per billion passenger-miles
1939	32	1.41	9	11.92
1940	80	3.36	35	30.23
1941	41	1.39	35	23.24
1942	98	1.82	55	36.64
1943	271	3.08	22	13.17
1944	259	2.71	48	21.70
1945	145	1.58	76	22.30
1946	115	1.78	75	12.36
1947	75	1.63	199	31.52
1948	52	1.26	83	13.29
1949	29	.83	93	13.15
1950	164	5.79	96	11.48
1951	150	4.33	142	12.97
1952	14	.41	46	3.54
1953	50	1.58	86	5.61
1954	23	.78	p 16	p .92

p Preliminary.
Source: ICC "Monthly Comment," April 1955.
* Includes fatalities in train accidents and other train-service occurrences.

(Continued on page 179)

Reduce accidents with reflectorized signs

Assure positive warning . . . fair weather or foul . . . with signs of "SCOTCHLITE" Reflective Sheeting

Now! Your railroad can increase safety on the right-of-way . . . both night *and* day. Signs of Wide Angle Flat-Top "Scotchlite" Reflective Sheeting are visible at night up to ½ mile . . . are distinct and clear by day. These signs prevent accidents, protect property through more efficient train control. Signs of "Scotchlite" Sheeting are *economical*. You can reflectorize your system with signs from your *own* sign shop!

With a low-cost vacuum applicator, you can bond "Scotchlite" Sheeting to aluminum sign blanks in 10 minutes flat! The applicator handles individual or "gang-up" layouts easily, at a saving of many dollars in labor and sign maintenance costs.

Send now for complete details on railway reflectorization, including the set-up of a money-saving model sign shop. Write to: Minnesota Mining & Manufacturing Co., Reflective Products Division. Dept. RA-5165, St. Paul 6, Minnesota.

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Financial

(Continued from page 16)
special forum on the outlook for the railroads.

"In the climate of a bright outlook of the report of the President's Cabinet Committee on Transportation," Mr. Kusik said, these opportunities "may be likened to the drifting flood tides of a great river which, when properly dammed and channeled, can be converted into powerful forces of creation." "Spectacular results achieved through dieselization," he added, "naturally pose the question as to where the industry might turn next for successful relief from pressure of the needs of competitive rate making, rising cost of improved services, rising wages and other factors." He cited three main methods for railroads to increase their latent earning power.

First, he noted, for development and growth of earning power, "there is no substitute for a vigorous sales organization," which can recognize the ever-changing needs for transportation service, anticipate these needs through research and development, be vigorous in solicitation and in industrial development, and be aggressive in competitive rate making. To this end, he said, a railroad must have strong and progressive sales executives, familiar with the latest developments in outside industries as well as their own.

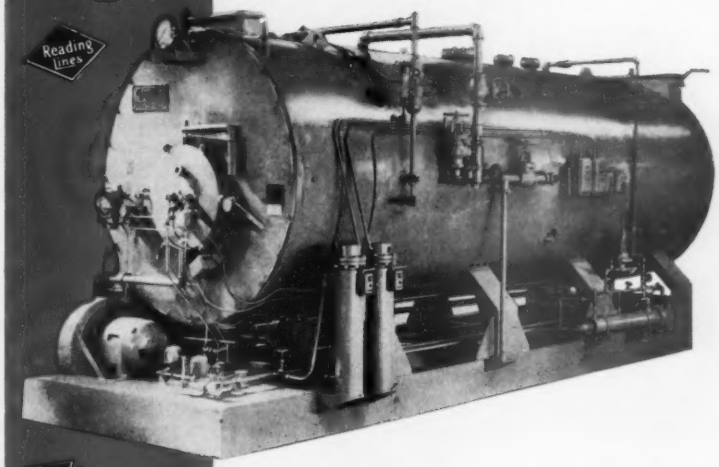
The second method, Mr. Kusik said, is on the operating side, where "by far the greatest opportunity for new profits lies in increased utilization of transportation property." The railroad business is one of movement "and yet our rolling stock is standing still 85% of the time."

Where tracks of two railroads parallel each other, he advocated joint use of one line, wherever feasible, and said the C&O is studying such joint-use proposals with two other railroads.

Mr. Kusik also mentioned the type of organization which the C&O and some other railroads have to insure full utilization of diesel engines by placing responsibility for their use in the hands of an officer with system-wide authority. "On C&O, initial use of this type of organization resulted in increased utilization which led to a reduction of anticipated purchases of diesel engines by 20 to 30 units," he said. "With our present total ownership of diesel engines in excess of 700 units, we feel it is not an unreasonable target to look for 10% more work out of this equipment. This would be equivalent to saving 70 diesel engines worth more than $10 million, with further annual saving in ownership

Selected items from annual reports of 36 U. S. railroads are listed on page 185.

Why



AMESTEAM'S

"The Railroad Boiler"

On road after road, AMESTEAM Generators have compiled a record of savings that have driven operational costs sharply downward. *Completely automatic,* these compact, highly efficient units provide an unfailing supply of dependable heat and process steam at better than 80% thermal efficiency. Little wonder that many of the nation's foremost roads are AMESTEAM users.

"The Railroad Boiler" banishes boiler room labor. It evaporates 15¾ pounds of water on 1 pound of fuel using No. 6 oil. AMESTEAM Generators are available in single units from 10 to 600 hp. Suitable for multiple installations. Design pressure—15 to 200 lbs. ASME and Underwriters approved. *Phone, write or wire.*

Exclusive Distributors to the Railroads
Engineering, Sales and Service
RAILROAD SUPPLY and EQUIPMENT Inc.
CLARKS SUMMIT, PA. *Phone Clarks Summit 6-2611*

4 VISTA-DOMES

a thrilling *Extra* on the Northwest's *Extra Comfort* train!

You see more of the magnificent scenery on the Vista-Dome North Coast Limited. Take a wide-open look at the wide-open spaces —en route to Yellowstone, dude ranches, the Pacific Northwest, or California.

Relax for a smooth ride in reclining chair coaches or private rooms. Enjoy superb diner meals, too.

Bring the family. Low "Family Plan" fares offer you substantial savings. Ask for full information.

Extra comfort... no extra fare!

"Northwest Adventure", a fact-and-picture booklet, is free to you. Write G. W. Rodine, 846 Northern Pacific Railway, St. Paul 1, Minn.

VISTA-DOME
NORTH COAST LIMITED

NORTHERN PACIFIC RAILWAY

CHICAGO • TWIN CITIES • SPOKANE • TACOMA • PORTLAND • SEATTLE

costs of perhaps as much as $2 million."

Finally, Mr. Kusik said, is the organization of cost reduction efforts as a new earning power tool. Managements must utilize the latest technological developments and modern managerial techniques, he declared, if they are to be successful in maintaining a high enough flow of cost reduction realizations. Needed for successful cost reduction, he concluded, is an "engineering approach" which can (1) measure the rate of the present undirected, uncontrolled flow of cost reductions; (2) appraise the full potential of available opportunities, and (3) establish a controlled, accelerated flow of cost reductions through enlarged organization channels.

To Increase Revenues—Mr. Schmidt, stating that "railroaders have performed miracles" in minimizing expenses, agreed with Mr. Kusik that "the big job now is to increase earnings of the railroads by increasing utilization of their plant." As "three ways" by which plant use may be improved and revenues—and net income —increased, he suggested: "(1) Better service; (2) establishment of rates which will attract all the traffic on which railroads can make a profit, and which will move off the rails all business which they carry at a loss; and (3) equalizing their competitive powers with those granted other forms of transportation."

"Given," he said, "a continuation of the miracle of cost control already

CARRIERS, BRT, AGREE ON MORE PAY FOR LONG TRAINS

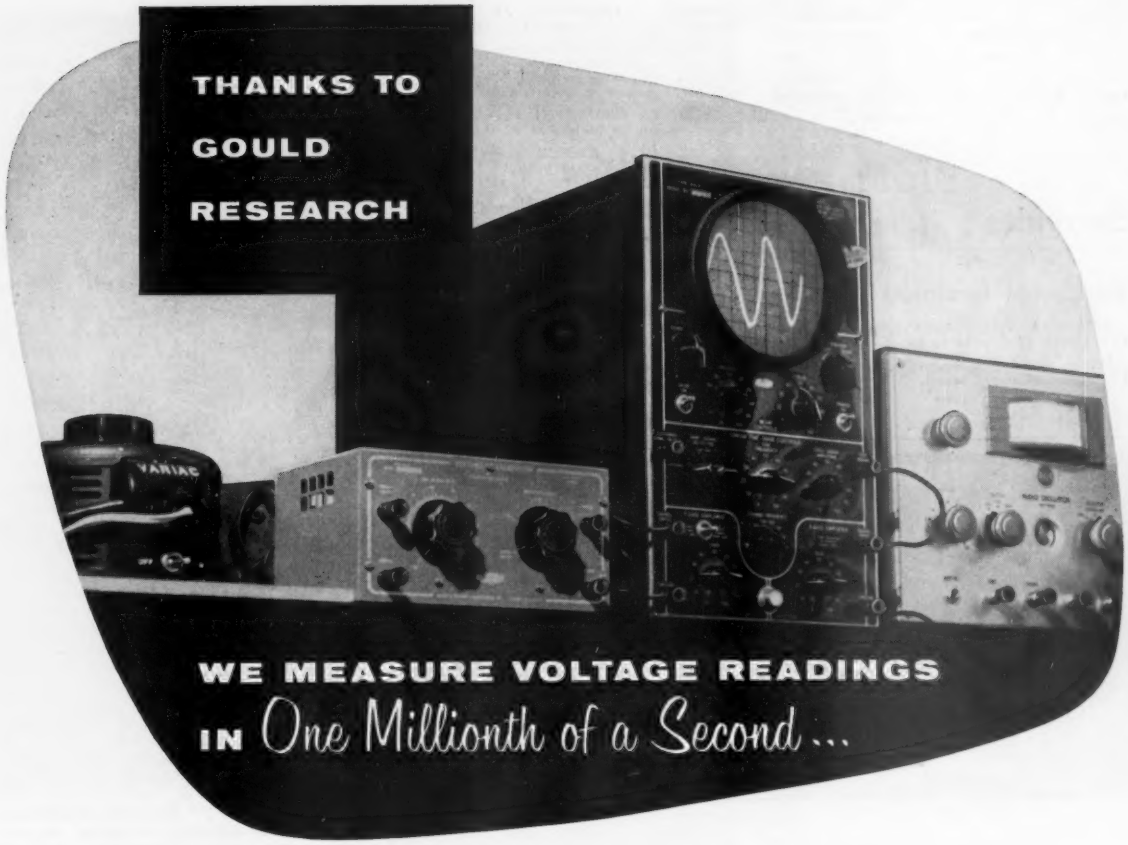
The nation's railroads and the Brotherhood of Railroad Trainmen have agreed on a graduated rate of pay for conductors and brakemen working on freight trains of 81 or more cars. Effective date is June 16.

Increases range from 45 cents a day additional on trains of 81 to 106 cars, up to a $1.30 a day additional for trains of 146 to 165 cars. Above 165, still another 20 cents will be paid for each block of 20 or less cars.

The BRT agreement also calls for an increase, from 85 cents to $1.10, in the daily pay differential between yard conductors and yard brakemen. This goes into effect June 1.

Separate agreement has been reached between western roads and the Switchmen's Union of North America, providing SUNA members with an identical 25-cent increase in differential between yard conductors and yard brakemen. This agreement also gives switch foremen a 25-cent boost in the daily differential between them and yard helpers.

Negotiators are still meeting with both BRT and SUNA on the unions' request for pay increases to yard employees on the five-day week.

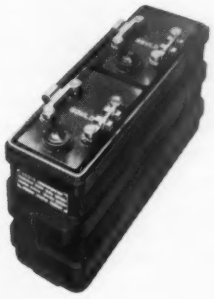


TO GIVE YOU GREATER BATTERY DEPENDABILITY!

Practically instantaneous voltage readings are made possible by the Oscillograph shown above. This important laboratory instrument has enabled Gould research technicians to 1) carry on the study of battery performance under instantaneous loads of fast circuit-breaker operation; 2) study the response of a battery to high charge rates; 3) attain more closely a perfect balance between grid design and active material.

This kind of basic research, in one of the finest battery research laboratories in the world, has given Gould Batteries service life and dependability thought impossible only a few years ago. That's why Gould Batteries are today's best battery buy. Specify GOULD!

For the full story on Gould research, send for Booklet 749.



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GOULD KATHANODE
BATTERIES
for Air Conditioning
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"BETTER BATTERIES THROUGH RESEARCH"

Always Use Gould-National Automobile and Truck Batteries

achieved by railroad management, modern regulation, modern pricing and modern services should bring to the railroads a large increase in profitable traffic which, in turn, should generate greatly increased net earnings."

Securities

Dividends Declared

ALBANY & VERMONT.—$1.25, payable May 16 to holders of record May 2.

BEECH CREEK.—50¢, quarterly, payable July 1 to holders of record June 3.

CAMDEN & BURLINGTON.—75¢, semiannual, payable July 1 to holders of record June 15.

CHESAPEAKE & OHIO.—common, 75¢, quarterly, payable June 20 to holders of record June 1; 3½% convertible preferred, 87½¢, quarterly, payable August 1 to holders of record July 7.

CHICAGO, BURLINGTON & QUINCY.—$2, payable June 23 to holders of record June 7.

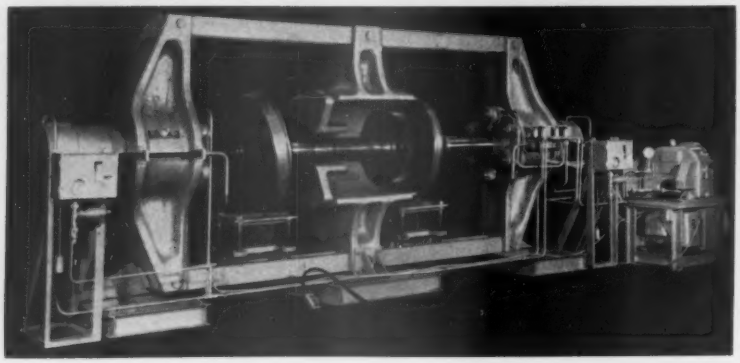
CLEARFIELD & MAHONING.—$1.50, semiannual, payable July 1 to holders of record June 20.

DELAWARE.—$1, semiannual, payable July 1 to holders of record June 15.

ELMIRA & WILLIAMSPORT.—7% preferred, $1.65, semiannual, payable July 1 to holders of record June 20.

MAINE CENTRAL.—5% preferred, accumulative, $1.25, payable June 1 to holders of record May 16.

MOBILE & BIRMINGHAM.—4% preferred, $2, semiannual, payable July 1 to holders of record June 1.



. . . mount or dismount car wheels easily with a

Rodgers Double End Car Wheel Press

MOUNTING or dismounting car wheels without reversing the axle in the press is just one time and labor saving feature of the Rodgers 600 Ton Double End Press illustrated above. This press permits individual or simultaneous mounting of two wheels, removes wheels from axles equipped with drive gears, etc.

Rodgers Hydraulic Equipment Includes:
Double End Car Wheel Press, 600 and 400 ton capacities.
Single End Car Wheel Press in three capacities:
200 ton, 10" diameter yoke
300 ton, 14" diameter yoke
400 & 600 ton, 18" diameter yoke
Hydraulic Pumps: 2 and 4 cylinder
Forcing Presses: vertical, inclined, horizontal and portable.
Pinion Pullers
Write for illustrated catalog 315A

Rodgers Hydraulic Inc.
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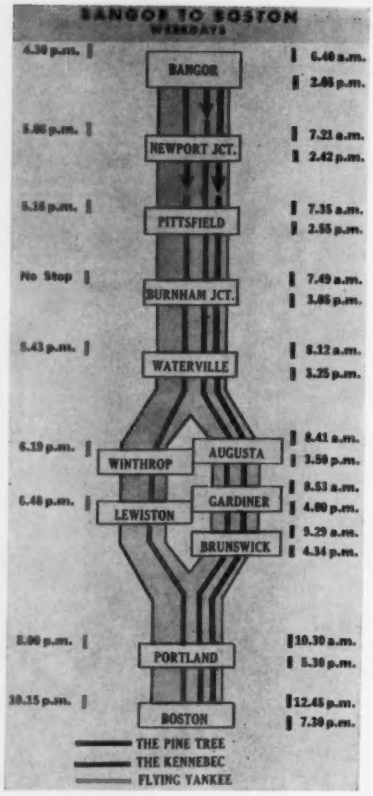
Minneapolis 16, Minn.



TO SIMPLIFY ITS TIMETABLE, the Maine Central is using, experimentally, this five-color "visual block." Featuring both time and space, it gives passengers a direct reading of route, location and time of principal trains. The broad divided stripe is light yellow, with narrow bands of darker colors overprinted on it—in green for the "Pine Tree," red for the "Kennebec," and blue for the "Flying Yankee" Short dashes, printed in corresponding colors, appear next to each train's time at each station. Times themselves are printed in black, and show daylight saving hours. The page here reproduced shows southbound service; northbound runs of the same trains are shown in the same manner on another page of the timetable

NEW YORK & HARLEM.—common, $2.50, semiannual; 10% preferred, $2.50, semiannual; both payable July 1 to holders of record June 3.

NORFOLK SOUTHERN.—30¢, quarterly, payable June 15 to holders of record June 1.

NORTHERN CENTRAL.—$2, semiannual, payable July 15 to holders of record June 30.

PITTSBURGH & WEST VIRGINIA.—50¢, quarterly, payable June 15 to holders of record May 20.

PITTSBURGH, FT. WAYNE & CHICAGO.—common, $1.75, quarterly, payable July 1 to holders of record June 10; 7% preferred, $1.75, quarterly, payable July 5 to holders of record June 10.

PITTSBURGH, YOUNGSTOWN & ASHTABULA.—7% preferred, $1.75, quarterly, payable June 1 to holders of record May 20.

ROCHESTER & GENESSEE VALLEY.—$2, semiannual, payable July 1 to holders of record June 20.

WEST JERSEY & SEASHORE.—$1.50, semian-

nual, payable July 1 to holders of record June 15.

Security Price Averages

	May 10	Prev. Week	Last Year
Average price of 20 representative railway stocks	96.87	96.13	64.76
Average price of 20 representative railway bonds	98.27	98.85	94.98

Organizations

Mechanical Division to Meet at Montreal

Sessions of the 28th annual meeting of the Mechanical Division, Association of American Railroads, will be held in the ball room of the Sheraton-Mt. Royal Hotel, Montreal, June 21, 22, and 23. The meeting will convene at 10 a.m., EDST, June 21. It will be a joint session of the Mechanical Division with the Electrical Section of the Mechanical and Engineering Divisions. The program for the meeting follows:

TUESDAY, JUNE 21
10 a.m.
Joint Session

Address by N. R. Crump, president, Canadian Pacific.
Address by R. G. May, vice-president, Operations and Maintenance Department, AAR.

Mechanical Division

Address by D. S. Neuhart (chairman), general superintendent motive power and machinery, Union Pacific.
Action on minutes of 1953 meeting.
Appointment of Committees on Subjects, Resolutions, etc.
Unfinished business.
New business.
Report of General Committee.
Report of Nominating Committee.
Discussion of reports on:
Locomotives.
Axles.
Geared Hand Brakes.
Safety Appliances.
Specifications for Materials.

WEDNESDAY, JUNE 22
9:30 a.m.

Address by Owen Clarke, member, Interstate Commerce Commission.
Discussion of reports on:
Arbitration.
Prices for Labor and Materials.
Brakes and Brake Equipment.
Loading Rules.

Luncheon

Address by S. F. Dingle, vice-president—operations, Canadian National, at luncheon sponsored by Canadian Railway Suppliers' Committee.

Afternoon

Discussion of reports on:
Special Committee on Forest Products Loading.
Couplers and draft gears.
Lubrication of Cars and Locomotives.
Wheels.

THURSDAY, JUNE 23
9:30 a.m.

Address by C. G. A. Rosen, Caterpillar Tractor Company.
Discussion of reports on:
Tank Cars.
Car Construction.
Election of members of General and Nominating Committees.
Report of Committee on Resolutions.

The May 20 dinner meeting of the **New York Railroad Club,** at the Hotel Commodore, at 7 p.m., has been designated as "Ladies Night." Music

THE BEST VESTIBULE CURTAIN...

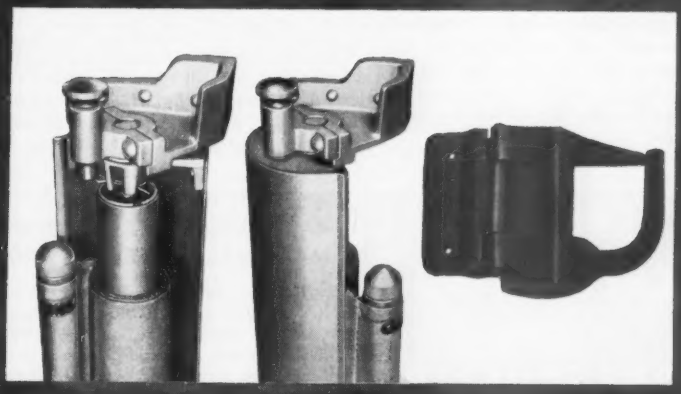
morton

To Meet Your Needs:

Adjustable or Non-Adjustable
Grooved or Plain
With or Without Snap-Button Holes

- toughest spring steel rollers
- cold-rolled welded steel tubing
- snap-button damage protection for premature pull-a-parts
- material and accessories to specification

CURTAINS, PARTS, HANDLES, HOOKS and BRACKETS for ALL REQUIREMENTS



Revolving shield and casing (shield open)

Revolving shield and casing (shield closed)

The new "B-J" vestibule curtain release handle. Positive releasing feature . . . service-proven.

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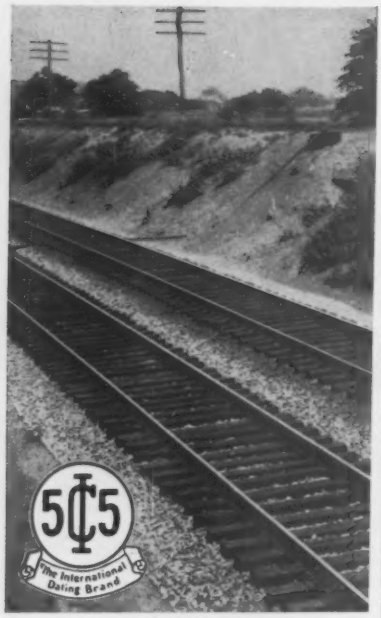

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TIES

Four generations of railroad men have known the benefits of using INTERNATIONAL Ties. These quality date-branded ties are well-seasoned and scientifically conditioned for today's high speeds and heavy traffic. Use them for longer service life — lower maintenance.

INTERNATIONAL CREOSOTING AND CONSTRUCTION CO.

Producers of Treated Ties, Poles, Piles, etc

GALVESTON-BEAUMONT

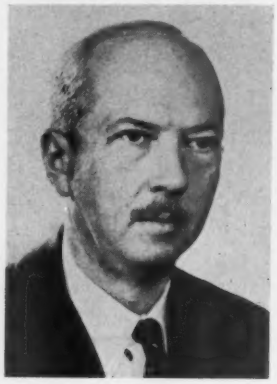
TEXARKANA

will be provided by the Cadet Glee Club of the U. S. Military Academy, West Point.

Supply Trade

The **Symington-Gould Corporation** has announced elections of **R. C. Loudon** as vice-president, in addito his present office of comptroller; of **H. A. Mason** as vice-president; and of **James S. Thompson, Jr.,** as executive assistant to president, in addition to his present office of secretary.

McClure Kelley has been elected president of **Baldwin-Lima-Hamilton Corporation,** succeeding **Marvin W. Smith,** who, as chairman of the executive committee, will continue as an executive officer of the company with special duties and responsibilities. Mr. Kelley was president of **Austin-Western Company** until the first of this year, when he became executive



McClure Kelley

vice-president of Baldwin-Lima-Hamilton. **Robert G. Tabors** and **Arthur Clements** have been elected vice-presidents of the Hamilton (Ohio) division. Mr. Tabors was assistant general manager of that division; Mr.

RAILWAY AGE, *READING, WIN NATIONAL SAFETY AWARDS*

Railway Age **again has won a public interest award from the National Safety Council. The non-competitive award, made annually to public information media for exceptional service to safety, was presented, for 1954 activities, to 34 daily and 11 weekly newspapers, 84 radio and 26 television stations, one television and three radio networks, 10 general circulation and 30 specialized magazines, 18 advertisers and 24 outdoor advertising companies. The Reading was a winner in the advertisers' group.**

ECONOMICAL
EFFICIENT
SIMPLE

Carbofrezer
Refrigerating Units

Natural Operation—
Nothing to Get Out of Order

In successful continuous service by many leading railroads in their dining cars for upwards of ten years.

COMING SOON!

A new packaged dry ice refrigerating unit for reefer cars. Regenerative thermo-syphonic for normal temperatures, augmented by a vacuum application for sub-zero coil temperatures. Pre-cooling in transit. An all purpose car. Cooling in summer, heating in winter.

The Carbofrezer Co.

995 Market St. San Francisco, California

Here's how we

SAVE ON RAILS

BUY "GUARANTEED RELAYERS"

Handle more cars better — spend less to install and maintain with Relayers from Foster. "Open-stock" shipments from Foster warehouses, all sections 12# thru 175# — plus Switch Materials and Track Equipment items.

Send catalogs ☐ *Rails* ☐ *Track Equipment*
☐ *Send Free 'Track Maintenance' Book* R.A.-5

RAILS · TRACK EQUIPMENT · PIPE · PILING

L.B. FOSTER CO.

PITTSBURGH 30 NEW YORK 7
CHICAGO 4 HOUSTON 2 LOS ANGELES 5

AT THE FRONTIERS OF PROGRESS YOU'LL FIND

AN AIR REDUCTION PRODUCT

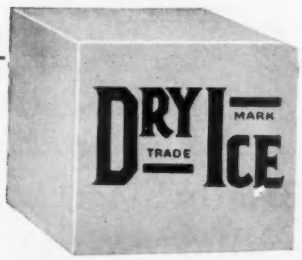
GOOD FOOD

kept to peak flavor with "Dry-Ice" dual temperature refrigeration

All over the country, more and more railroads are switching to PURECO "DRY-ICE" for compact refrigeration in their dining cars. And for the best of reasons, too . . . because with "DRY-ICE" refrigeration there are no moving parts to get out of order—maintenance is reduced to a minimum—and the dual temperature Carbofrezer installations available provide complete protection for fresh and frozen foods alike.

It's a fact! You can't beat the steady, efficient refrigeration that "DRY-ICE" provides. Reliable and clean, PURECO "DRY-ICE" is low in cost and will enable you to effect real savings over older forms of refrigeration.

Why not get the facts? It's just plain good business to have the PURECO man call. He can give you the full story on how "DRY-ICE" refrigeration can be tailored to your specific needs.



Pure Carbonic Company

NATION-WIDE "DRY-ICE" SERVICE-DISTRIBUTING STATIONS IN PRINCIPAL CITIES

GENERAL OFFICES: 60 EAST 42ND STREET, NEW YORK 17, NEW YORK

PURE CARBONIC COMPANY *is a division of* **AIR REDUCTION COMPANY, INCORPORATED** *Principal products of other divisions include:* **AIRCO**—*industrial gases, welding and cutting equipment and acetylenic chemicals* **OHIO**—*medical gases and hospital equipment* **NATIONAL CARBIDE**—*pipeline acetylene and calcium carbide* **COLTON**—*polyvinyl acetates, alcohols and other synthetic resins.*

if not . . . better call **THRALL**

We make railroad cars. Good cars . . . standards and specials. Can we match the "giants"? On "giant" orders, quite frankly . . . no.

Thrall's forte is smaller runs . . . 1 to 200 cars. Here's where we shine. Our fine engineering and flexible, medium-size operation assure unusual quality and eye-opening bids . . . as many railroads and industrial purchasers have pleasantly discovered. Even on bids against their own shops.

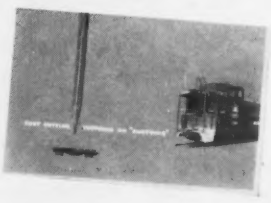
What's more, you needn't accumulate "small" orders. Thrall will process them immediately. Price? Better than competitive . . . even compared with large run orders. Service? Excellent . . . all the way from initial planning through final, fast delivery. Reconditioned cars? Sure, and leasing too.

Would you like an en-Thrall-ing bid?

THRALL CUSTOM QUALITY COSTS NO MORE

SEND FOR THIS ENLIGHTENING BROCHURE

Pictures of some classy cars. A description of our facile facilities. Both yours in handsome brochure form. Sent free. Sent promptly. No obligation.



THRALL

CAR MANUFACTURING COMPANY

2602 Wallace St. • Chicago Heights, Illinois

Clements was vice-president and general manager of the division's Clearing Machine Corporation.

D. M. Vance, formerly with the **Nathan Manufacturing Company,** has joined the Chicago sales force of **Gustin-Bacon Manufacturing Company.**

E. A. Condit has been named chairman and **H. L. Lansing** president of the **Rail Joint Company.** Mr. Condit will remain as vice-president and director of **Poor & Co.,** at New York.

Chris H. Bartlett, manager of the manufacturing and repair division of **Westinghouse Electric Corporation,** has been elected vice-president in charge of that division, at Pittsburgh. **Charles C. Shutt,** head of the small motor division at Lima, Ohio, also has been elected a vice-president.

Oliver Iron & Steel Corp. has appointed the following regional sales managers: **Edward S. Norwood,** Southeastern region, at Birmingham; **C. Rea Guthridge,** Midwestern region, at Chicago; and **C. R. Dudley,** Southwestern region, at Dallas.

Railway Officers

AKRON, CANTON & YOUNGSTOWN.—Vincent H. Johnson, vice-president—executive assistant to president at Akron, Ohio, has been elected vice-president and general manager. The position of executive assistant to president has been abolished.

ASSOCIATION OF AMERICAN RAILROADS.—Charles O. Morgret has been promoted from public relations assistant to manager of special studies in the Public Relations Department. He succeeded Loyd J. Kiernan who resigned to become executive vice-president of the Boston & Maine. **Douglas R. Stephenson,** who had been research assistant in the School and College Service, succeeded Mr. Morgret as public relations assistant.

Gordon G. Schwinn, field secretary of the Pacific Coast Transportation Advisory Board at San Francisco, has been appointed a district manager, Car Service Division, AAR, at Seattle, succeeding **F. T. Westmeyer,** who has resigned to accept another post in the railroad industry, effective May 16.

ASSOCIATION OF WESTERN

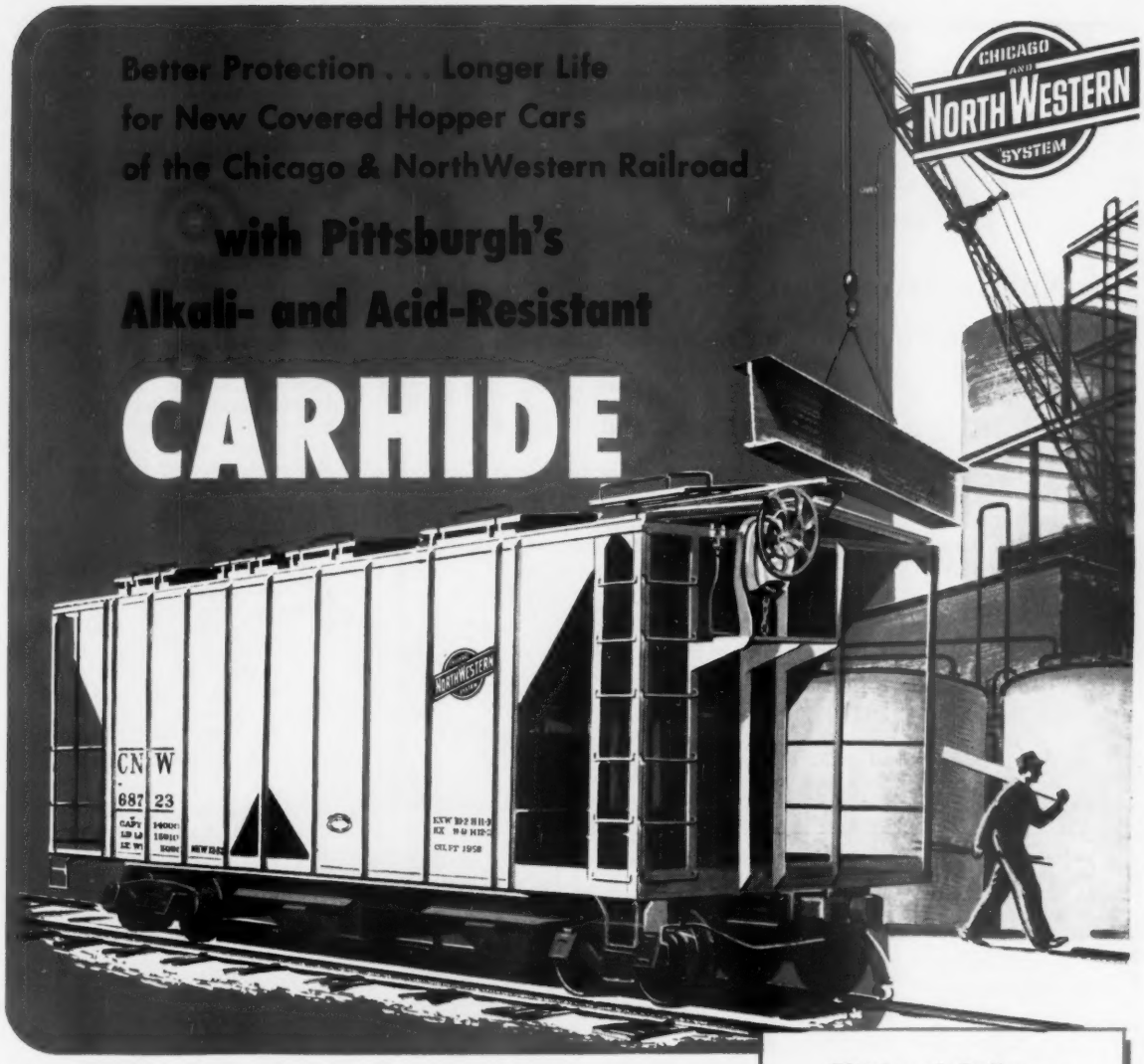
Briefly . . .

. . . **Damages of $105,000** have been collected by the Canadian National from a trucking company which was responsible for derailment of the railroad's "Continental Limited" just west of Montreal.

Better Protection . . . Longer Life
for New Covered Hopper Cars
of the Chicago & NorthWestern Railroad

with Pittsburgh's
Alkali- and Acid-Resistant

CARHIDE



CARGOES that destroy ordinary finishes have little effect on covered hopper cars of the Chicago & NorthWestern Railroad. These cars are better protected for longer life with Pittsburgh's alkali- and acid-resistant CARHIDE.

A long list of railroads have found alkali- and acid-resistant CARHIDE unaffected by such ladings as soda ash, sulphur, phosphates, strong acids, alkalis, cement, lime, common salt, crude oil and alcohol. It cuts repainting costs, too. Many of these cars—in service for as long as five years—have required no repainting.

In addition, alkali- and acid-resistant CARHIDE withstands mechanical damage and the effects of temperature and weather extremes to an unusual degree. It is easily, quickly applied and dries so rapidly that one-day finishing schedules can be maintained.

It will pay you to investigate the advantages of alkali- and acid-resistant CARHIDE. Call on us for advice that can save you time and money.

PITTSBURGH PLATE GLASS CO., Industrial Paint Div., Pittsburgh, Pa. Factories: Milwaukee, Wis.; Newark, N. J.; Springdale, Pa.; Atlanta, Ga.; Houston, Texas; Torrance, Calif.; Portland, Ore. Ditzler Color Division, Detroit, Michigan. Thresher Paint & Varnish Division, Dayton, Ohio. Forbes Finishes Division, Cleveland, Ohio. M. B. Suydam Division, Pittsburgh, Pa.

Pittsburgh Railway Finishes For Every Need

CARHIDE—for wood and metal freight cars of all types.

Hot-Spray CARHIDE—provides twice as much paint in one application.

LAVAX SYNTHETIC ENAMELS—for locomotives and passenger cars.

STATIONHIDE—adds beauty and attractiveness to stations.

IRONHIDE—for iron and steel fixed properties.

SNOLITE—white fume-resistant paint for signs, crossing gates, fences and cattle guards.

PPG

PITTSBURGH PAINTS

PAINTS • GLASS • CHEMICALS • BRUSHES • PLASTICS • FIBER GLASS

PITTSBURGH PLATE GLASS COMPANY

IN CANADA: CANADIAN PITTSBURGH INDUSTRIES LIMITED

This announcement appears for purposes of record only. These securities were placed privately and no public offering is being made.

New Issue **April 28, 1955**

$7,350,000

North American Car Corporation

5⅛% Cumulative Preferred Shares

($100 Par Value)

This financing was arranged in connection with the acquisition of the assets of the Mathers Humane Stock Transportation Company by North American Car Corporation. The undersigned acted as advisor in these negotiations and as agents of Mathers Humane Stock Transportation Company in the placement of these securities.

Glore, Forgan & Co.

SMART ACCESSORIES

to modern interior furnishings

On the City of Miami, Streamliner of the Illinois Central Railroad, Climax Stanley DeLuxe Smokers are used in the observation lounge car.

STANLEY De Luxe.....$69.50*
With Tray.....$78.90*
Shipping wt. 25 lbs.

Climax Club Smokers

The simplicity which characterizes Climax Club Smokers makes these handsomely crafted ash receivers appropriate for any modern interior where functional design and elegance are basic considerations. Styles and typical installations in famous places are shown in the new 1955 catalog. Ask for brochure 5-AA

**Prices f.o.b. factory*

ARNOLT CORPORATION WARSAW INDIANA, U.S.A.

RAILWAYS.—N. H. Schammel has been appointed manager of the Pacific Car Demurrage Bureau at San Francisco, succeeding **A. A. DeAyala,** retired.

CANADIAN PACIFIC. — W. H. Oattes has been appointed assistant superintendent, Laurentian division, at Montreal, succeeding **F. J. Liston,** deceased.

CHESAPEAKE & OHIO.—R. L. Schilke, assistant general freight agent at Detroit, has been appointed assistant freight traffic manager there, succeeding **S. F. Witt,** who has been transferred to Chicago. **C. W. Campbell** succeeds Mr. Schilke as assistant general freight agent at Detroit and **L. J. Hurckes** has been appointed assistant general freight agent at Chicago. **R. J. Rappold,** traveling freight agent at Norfolk, Va., has been appointed general agent at Greenville, S.C., succeeding **W. B. Cook,** who has been transferred to Lynchburg, Va. Mr. Cook succeeds **E. A. Woolen,** who replaces Mr. Campbell as general agent at Richmond.

E. W. Staubs, assistant freight claim agent at Detroit, has been appointed freight claim agent at Richmond, succeeding **A. H. O'Meara,** who has retired after 46 years of service. **N. W. Bern** has been appointed assistant to freight claim agent at Detroit.

CHICAGO & NORTH WESTERN.—T. M. Evans, assistant communications engineer at Chicago, has been appointed communications engineer there, succeeding **P. A. Starck,** who has retired after 47 years of service. Mr. Evans' successor is **W. L. Mansfield.**

E. J. Mueller, assistant general commerce agent at Chicago, has been promoted to assistant to vice-president — traffic there, succeeding **E. W. Ernst,** who has been named Southern traffic manager—system at St. Louis.

CHICAGO GREAT WESTERN.—

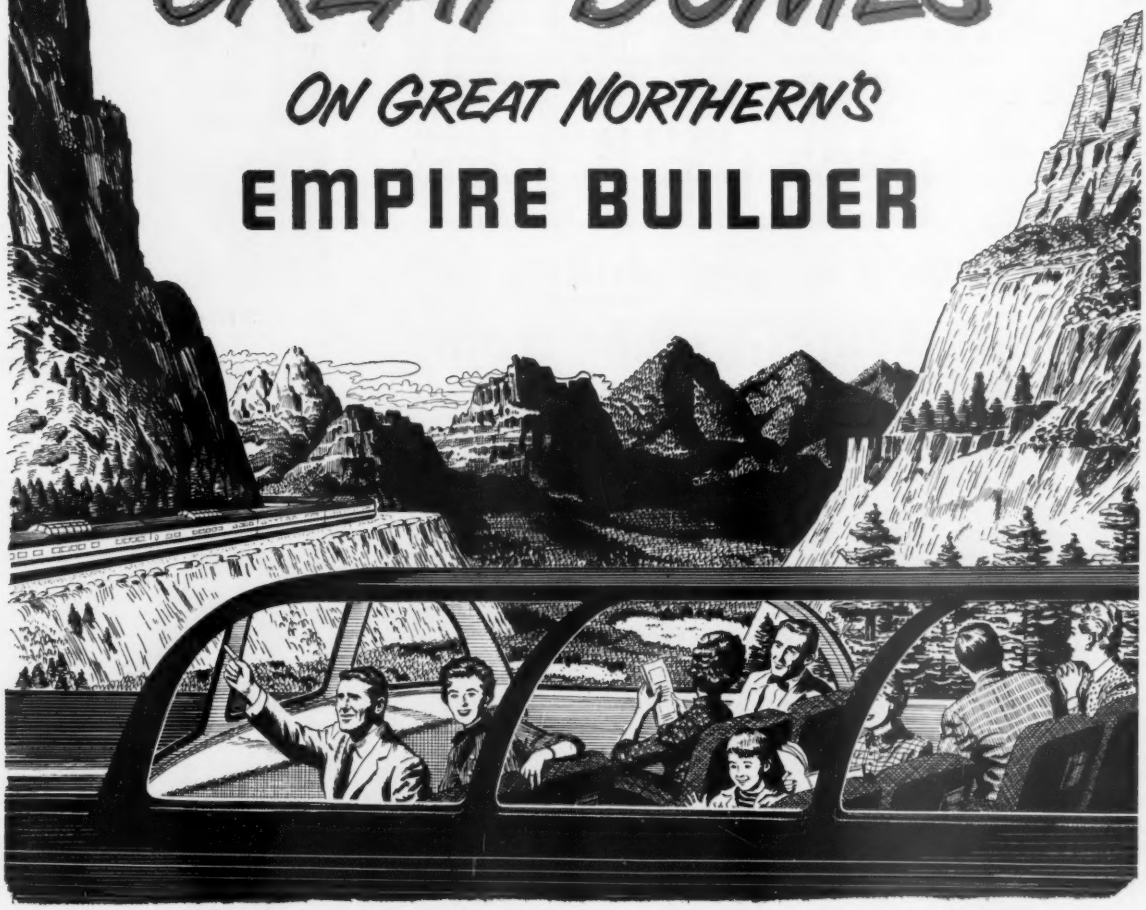
BOSTON & MAINE.—Loyd J. Kiernan has been elected executive vice-president at Boston, as noted in *Railway Age* April 25.

BEGINNING MAY 29TH!

GREAT DOMES

ON GREAT NORTHERN'S

EMPIRE BUILDER



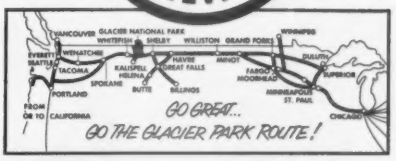
FASTEST STREAMLINER FROM CHICAGO TO SEATTLE

You'll have a grandstand seat for America's greatest scenery on the famous Empire Builder's new Great Domes, starting Sunday, May 29. They'll be the newest and most modern dome cars to Pacific Northwest cities over the spectacular northern route. And on that same day, Great Northern cuts one hour from the Empire Builder schedule, making it the fastest streamliner from Chicago to Seattle.

Departure from Chicago Union Station will be 2 p.m. daily (Standard Time)—one hour later than now. Arrival times in Spokane, Seattle and Portland will not be changed.

More Great Domes are on the way, including luxurious full-length dome cars.

GREAT NORTHERN RAILWAY



GO FASTEST... GO GREAT NORTHERN!

G. L. Schwab has been named executive general agent at St. Paul.

David W. Quick, general freight agent at Minneapolis and St. Paul, retired April 30. **J. J. McLaughlin** has been named general freight agent at Minneapolis. **J. E. Sterling** has been appointed general agent at Chicago.

DELAWARE & HUDSON.—**G. G. Seaman** has been appointed western traffic manager at Chicago, succeeding the late **C. H. Clark** (*Railway Age*, April 4).

JERSEY CENTRAL.—**William C. Bohn,** who became division storekeeper at Elizabethport, N.J., March 1, has been named supervisor of stores there, succeeding the late **J. V. Hanrahan. John F. Gilligan,** storehouse foreman, succeeds Mr. Bohn as division storekeeper at Elizabethport.

LEHIGH & NEW ENGLAND.—**Joseph C. Pearson,** assistant purchasing agent of the Lehigh Coal & Navigation Co., has been appointed purchasing agent of that company and assistant purchasing agent of the L&NE at Bethlehem, Pa.

LEHIGH VALLEY.—As reported in *Railway Age* May 9, **James J. Swift** has been elected vice-president —operations and maintenance; **R. E. Gaugh** has been elected vice-president and comptroller, and **B. J. Viviano**

James J. Swift

R. E. Gaugh

B. J. Viviano

has been elected vice-president and general counsel.

MILWAUKEE.—**E. L. Grote,** master mechanic at Minneapolis, has been appointed assistant superintendent motive power at Milwaukee.

J. M. Stanger, city passenger agent at Tacoma, Wash., has been appointed district passenger agent there, succeeding **A. J. Knaff,** retired. **Joseph E. Griller,** district passenger agent at Minneapolis, has been named gen-

Tomorrow's design today for projected light-weight trains

New Mink-Dayton designs for light-weight luggage racks and lighting fixtures are in perfect step with the development of today's new light-weight passenger trains.

May we consult with you regarding your particular design and installation problems?

Mink-Dayton sets the pace for future light-weight trains.

Need any other light-weight items? Our design engineers are at your service. Write today.

DAYTON MINK OHIO

MINK-DAYTON, Inc.
117 North Findlay Street
Dayton 3, Ohio

PEERLESS

PROTECTION

DON'T RISK today's high-priced lading . . . The H-I-B2, your **PEERLESS** protection against loss!

PEERLESS
EQUIPMENT
COMPANY

332 SOUTH MICHIGAN AVENUE
CHICAGO 4, ILLINOIS

For cost-cutting answers to any door need, see these

TWO NEW CATALOGS!

Kinnear Steel Rolling Doors
With the coiling upward action of the interlocking steel-slat curtain, *originated* by Kinnear

Kinnear Rolling Fire Doors
All-steel "Akbar" Doors, famous for safety features and labeled by Underwriters Laboratories, Inc.

Kinnear Steel Rolling Grilles
A protective, attractive openwork of steel bars and links—admits light, air and vision

Kinnear Motor Operators
Special rugged motors for time-saving push-button door operation

Kinnear Rol-TOP Doors
Sectional upward-acting wood or all-steel doors with any number of panels for glass

KINNEAR ROLLING DOORS

Saving Ways in Doorways

Write for Your Copies Today

FACTORIES IN COLUMBUS, OHIO and LOS ANGELES, CALIFORNIA

The Kinnear Manufacturing Co.
2020-40 Fields Avenue, Columbus 16, Ohio
Please send new Kinnear door catalogs to:

Name_____ Title_____

Firm_____

Street_____

City_____ Zone_____ State_____

B&O TO TRY RDC's ON FAST SPECIAL RUN

To test the potentialities of Budd rail-diesel cars (RDC's) in fast, long-distance passenger service, the Baltimore & Ohio will operate a special Memorial Day week-end excursion from Washington, D.C., to Chicago and return.

The special train, consisting of three RDC's, will leave Washington at 7:45 a.m., EDST, May 28, and arrive in Chicago at 7:45 p.m., CDST, the same day. Its total elapsed time of 13 hr will be two and one-half hours less than the 15½-hr schedule of the "Capitol Limited," the B&O's premier train between the two cities. Returning May 30, the train will leave Chicago at 7:30 a.m. and reach Washington at 11 p.m., the slower time being accounted for by a dinner stop and by contemplated operation over a scenic freight-only route from New Castle Junction, Pa., to Pittsburgh.

The fast westbound trip, with intermediate stops for service and crew changes, will not exceed presently authorized speed limits at any point, according to B&O officers. They anticipate, however, that the RDC's will be able to maintain maximum or near maximum speeds on grades and around curves, where standard trains are unable to do so.

No meals will be served en route, but sandwiches and soft drinks will be available on the train.

Round-trip fare, including tax, will be $24.75. Tickets are being sold through the Washington chapter of the National Railway Historical Society, which is cooperating with the B&O in arranging the excursion.

eral agent, passenger department, at St. Paul, succeeding the late **Paul J. Nikolai.**

SEABOARD.—Thomas J. Callahan, stationery storekeeper at Hamlet, N.C., has been promoted to stationery supervisor at Norfolk, Va., succeeding **George E. Perrot,** who has retired after 47 years of service with this road. **Steven W. White** has been promoted to succeed Mr. Callahan as stationery storekeeper at Hamlet.

UNION PACIFIC.—R. M. Sutton, general auditor at Omaha, has been elected a vice-president.

OBITUARY

K. M. Fetterly, 58, foreign freight traffic manager of the **Canadian Pacific** at Montreal, died while on business in London, England, May 2.

William L. Linnehan, 73, retired assistant auditor of the **Rock Island,** died May 2 at Chicago.

FIGURES WORTH HAVING

(Continued from page 163)

1954 PASSENGER-MILE REVENUES

(Excluding Commutation)

		Per Cent Decrease from 1953
Passengers carried:		
Coach	171,740,926	5.0
Sleeping Cars*	17,838,876	11.2
Revenue passenger-miles (000):		
Coach	17,689,232	6.7
Sleeping Cars*	6,850,151	13.8
Revenue per passenger-mile, cents:		
Coach	2.50	1.2
Sleeping Cars*	3.35	0.9
Average miles per passenger (per road):		
Coach	103.0	1.7
Sleeping Cars*	384.0	3.0

*And parlor cars
Source: ICC. Subject to revision.

DISTRIBUTION OF MILITARY PASSENGER TRAFFIC

(Organized movements of 15 men or more)

PERIOD		RAIL	AIR	BUS	TOTAL
	Military	Pasenger-Miles	(thousands)		
Fiscal year	1952	1,589,605	391,426	94,009	2,075,040
Calendar year	1952	1,216,893	497,080	110,190	1,824,163
Fiscal year	1953	892,861	598,022	132,359	1,713,242
Calendar year	1953	776,655	595,754	128,167	1,500,576
Scheduled			198,411		
Non-scheduled			397,343		
Fiscal year	1954	607,770	531,833	101,226	1,240,829
Scheduled			152,141		
Non-scheduled			379,692		
		Percentage Distribution			
Fiscal year	1952	76.61%	18.86%	4.53%	100.00%
Calendar year	1952	66.71	27.25	6.04	100.00
Fiscal year	1953	57.37	34.91	7.72	100.00
Calendar year	1953	51.76	39.70	8.54	100.00
Scheduled			13.22		
Non-scheduled			26.48		
Fiscal year	1954	48.98	42.86	8.16	100.00
Scheduled			12.26		
Non-scheduled			30.60		

Source: Western Military Bureau

PAYMENTS FOR THE MOVEMENT OF MAIL—1951-54

	Fiscal year			
	1951	1952	1953	1954
A. Star route service	$35,677,900	$38,261,760	$41,230,734	$40,709,081
B. Highway post office		1,863,366	2,644,004	2,848,666
Contract	(1)	495,866	1,245,949	1,659,181
Government		1,367,500	1,398,005	1,189,485
C. Short-haul truck service		3,150,210	6,138,759	7,872,037
D. Domestic air mail service	31,965,746	36,072,000	37,550,000	37,460,440
E. Mail revenues of Class I line-haul railways	280,998,929(2)	304,806,703(3)	316,751,390	313,241,432

(1) "Highway post office" in 1951 is included in "Star route"
(2) Includes $41,390,082 additional railway mail pay accrued under the Post Office Department stipulation dated October 11, 1950, for the calendar year 1950 which cannot be separated between fiscal years 1950 and 1951.
(3) Includes $20,989,034 additional 1951 railway mail pay resulting from ICC decision of November 13, 1951.
Source: ICC "Monthly Comment," April 1955.

TEN LEADING RAIL AND AIR CARRIERS OF PASSENGERS

	Passenger-miles* (millions)			Rank		
Carrier	7 mos. 1954	Year 1950	Year 1946	7 mos. 1954	Year 1950	Year 1946
American Airlines	2,085	1,740	1,308	1	4	*
Pennsylvania	2,025	3,822	9,095	2	1	1
New York Central	1,726	3,418	5,945	3	2	2
Eastern Airlines	1,693	1,227	803	4	8	*
United Airlines	1,653	1,412	1,068	5	7	*
Trans-World Airlines	1,442	1,106	744	6	10	*
Atchison, Topeka & Santa Fe	1,105	1,881	4,024	7	3	3
Union Pacific	831	1,426	3,654	8	6	5
Southern Pacific	764	1,705	3,906	9	5	4
New York, New Haven & Hart.	734	1,210	2,366	10	9	6

a Domestic travel, excluding commutation.
* Not among ten leading passenger carriers in 1946.
Source: AAR

RAIL VS. AIR LINE FARES

(As of November 30, 1954)

	First class		Coach		
Between	Rail*	Air	Rail	Air Day	Air Night
New York and Miami	$68.38	$76.70	$38.52	$50.50	$44.00
New York and Chicago	49.79	45.10	30.71	33.00	33.00
New York and Los Angeles	142.22	158.85	81.51	99.00	99.00
Chicago and Miami	69.52	80.20	39.51	54.40	50.30
Chicago and New Orleans	42.86	55.75	23.76	.....	45.40
Chicago and Seattle	96.06	114.75	53.61	89.00	89.00
Los Angeles and San Francisco	23.23	22.05	13.02	13.50	13.50
Los Angeles and Dallas	66.65	77.30	36.61	57.00	57.00

* Includes Pullman lower berth.
Note: Federal excise tax (10%) not included.
Source: AAR

COMPARISON OF RAIL AND AIR PASSENGER TRAFFIC—1946-1954

	First class			Coach	
Year	Rail parlor & sleeping car	Air regular flights	Ratio air to rail	Rail excluding commutation	Air	Ratio air to rail
	Millions of Passenger-Miles					
1946	19,801	5,948	30.0%	39,039	....	....
1947	12,261	6,110	49.8	27,660	....	....
1948	11,015	5,976	54.3	24,315	5	....
1949	9,349	6,501	69.5	20,273	251	1.2
1950	9,338	6,947	74.4	17,443	1,056	6.1
1951	10,226	9,294	90.9	19,524	1,272	6.5
1952	9,504	10,183	107.1	19,758	2,346	11.9
1953	7,950	11,028	138.7	18,955	3,732	19.7
1954	6,850	11,448	167.1	17,689	5,321	30.1

Source: AAR, except air data from CAA.

1954 PAYMENTS FOR TRANSPORTING MAIL

(Ten Top Railroads)

Pennsylvania	$40,000,000
New York Central	38,500,000
Santa Fe	24,250,000
Union Pacific	17,250,000
Southern Pacific (Pacific Lines)	14,250,000
Burlington	13,750,000
Southern	11,700,000
Baltimore & Ohio	9,000,000
Milwaukee	8,400,000
Great Northern	8,250,000

Source: Post Office Department

HERE'S PROOF of customer satisfaction!

1904

1955

Photographs courtesy ACF Industries, Inc.

New York City Transit Authority still specifies NP door operators

Today, as over 50 years ago, *NP* Door Control and Safety Equipment speeds up passenger interchange and helps make travel convenient, pleasant and safe. It also improves heating and air conditioning control. Built to give long, reliable service, this equipment is specified by almost every major railway and subway system in the world today.

Write today for complete information on *NP* Door Control & Safety Equipment.

Equipment that improves passenger relations

NATIONAL PNEUMATIC CO., INC. AND **HOLTZER-CABOT** DIVISIONS

125 Amory St., Boston 19, Mass.
Sales Service Representatives in Principal Cities throughout the World

Designers and manufacturers of mechanical, pneumatic, hydraulic, electric and electronic equipment and systems

Here are the details

C-D's New

Economy Vibrator RR Converter

Start with *single* vibrator low initial cost unit—convert to *dual* vibrator automatic changeover, *any time*. New "3600 Series" incorporates all features and rugged dependability of now famous "3200 Series".

Here's an economy converter that's tailored to conservative budgets without compromise with long service-life quality — featuring:

- Low-Cost initial investment—nearly one-half that of earlier series. At least 50% longer vibrator life expectancy.
- Sine wave output: 250 V.A. Int; 200 V.A. Cont.
- Built-in Voltage Regulation for extended tube life—a C-D exclusive.
- Instant "Emergency Service" conversion from single to dual vibrators in less than 30 seconds, without tools.
- Negligible maintenance costs.
- Choice of "Rack" or "Bulkhead" mounting.
- Available also as a factory equipped dual vibrator, switchover unit, for complete automatic initial installation.
- The "3600" unit may be supplied for mounting interchangeability in existing "3200" rack installations.

Write for our Bulletin EB-3600, Cornell-Dubilier Electric Corporation, Dept. RA 55A Indianapolis Division, 2900 Columbia Ave., Indianapolis, Indiana. Affiliated Member A.A.R.

CONSISTENTLY DEPENDABLE

CORNELL-DUBILIER

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—Hydraulic boosters provide power steering *and* braking.

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Torque converter: 3 speeds forward, 0 to 4.1 m.p.h., 0 to 5.7 m.p.h., 0 to 7.8 m.p.h. • 2 speeds reverse, 0 to 4.1 m.p.h., 0 to 7.8 m.p.h.

Direct drive: 6 speeds forward, 1.6, 2.1, 2.9, 3.9, 5.0, 6.8 m.p.h.
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EQUIPMENT: New Caterpillar-built 'Dozers for the D9: the No. 9S Bulldozer, modified straight blade; the No. 9A Bulldozer, angling blade. New Caterpillar-built Cable Controls: the No. 29 rear-mounted, double drum; the No. 30 front-mounted, single drum.

SPECIFICATIONS: Length 17' 10¾", width 9' 11¼", height 8' 9", gauge 90", approx. wt. 54,000 lb. dry — 56,200 lb. operating.

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THE D9— NEW KING OF THE CRAWLERS

ANNUAL REPORTS

Railroad		Operating Revenues	Operating Expenses	Fixed Charges	Net Income	Current Assets*	Current Liabilities*	Long Term Debt*
Ann Arbor	1954	$ 8,735,256	$ 7,155,526	$ 232,274	$ 512,015	$ 3,621,902	$ 895,884	$ 5,992,523
	1953	9,443,256	7,210,996	240,732	797,869	3,772,774	1,397,683	6,324,015
Atchison, Topeka & Santa Fe	1954	532,292,358	399,501,804	7,848,253	66,172,950	207,065,799	104,477,393	195,982,500
	1953	613,531,290	441,362,499	7,891,256	77,185,997	227,431,914	139,890,344	197,408,102
Atlanta & St. Andrews Bay	1954	3,758,963	1,751,836	15,006	730,604	2,189,572	1,275,630	None
	1953	3,747,720	1,763,618	15,393	589,374	2,535,677	1,533,698	None
Atlantic & Danville	1954	1,583,803	1,315,006	44,650	177,808d	351,826	446,274	2,982,722
	1953	1,884,759	1,479,542	8,602	25,638	500,395	412,569	2,781,469
Bessemer & Lake Erie	1954	20,456,483	17,169,281	523,396	4,215,995	9,911,738	5,881,135	17,193,431
	1953	30,107,470	18,391,095	512,712	6,879,527	12,148,121	11,505,058	18,813,081
Canadian Pacific	1954	422,642,423	395,609,497	15,041,997	29,826,248	181,235,631	72,104,164	172,793,500
	1953	470,571,371	441,686,799	14,236,161	31,450,462	166,444,523	75,850,745	126,114,000
Chicago & Eastern Illinois	1954	32,615,326	26,485,101	1,064,838	2,225,750	7,197,288	5,553,827	38,160,191
	1953	36,483,858	27,954,316	1,090,704	2,333,045	7,914,159	6,619,560	39,033,543
Chicago & North Western	1954	188,439,849	166,981,622	3,771,860	4,592,295d	46,833,150	35,150,021	196,781,872
	1953	204,344,089	175,528,189	3,395,802	4,248,078	58,758,254	37,457,821	194,336,915
Chicago Great Western	1954	32,657,522	22,665,223	992,542	3,057,510	10,589,691	6,408,564	29,404,991
	1953	31,436,397	21,270,270	1,007,269	3,001,060	9,975,302	8,301,838	29,621,258
Chicago, Indianapolis & Louisville	1954	20,791,973	15,954,666	269,717	1,201,075	6,445,659	4,015,940	21,198,700
	1953	21,887,902	16,946,807	283,273	1,211,135	6,582,129	4,156,603	22,138,796
Chicago, Milwaukee, St. Paul & Pacific	1954	237,744,639	199,410,604	4,592,848	9,904,459	85,661,024	39,178,475	223,817,963
	1953	259,860,191	218,183,759	4,415,366	10,013,018	90,096,461	42,699,234	218,682,213
Denver & Rio Grande Western	1954	73,139,062	48,409,142	2,147,158	10,554,569	35,146,328	17,138,910	87,351,690
	1953	84,701,139	54,939,994	2,076,894	10,208,813	45,286,832	21,753,871	90,166,210
Detroit & Mackinac	1954	2,003,764	1,458,164	65,553	282,691	507,311	461,082	1,797,599
	1953	2,131,242	1,446,149	69,230	337,068	514,228	483,979	2,017,292
Duluth, Missabi & Iron Range	1954	39,074,920	28,579,110	544,787	4,401,346	10,969,863	10,357,090	17,733,821
	1953	63,214,309	36,749,641	585,820	12,798,089	19,057,478	20,086,363	21,299,052
Illinois Terminal	1954	10,983,916	9,464,043	562,414	197,400	2,941,966	2,144,652	14,284,951
	1953	12,593,632	9,957,782	575,580	662,779	3,564,793	2,850,737	15,192,474
International of Central America	1954	13,785,952	12,693,643	270,175	369,277	6,912,559	1,028,763	5,377,597
	1953	14,463,486	12,805,727	285,721	664,838	7,115,714	1,380,912	5,858,977
Kansas City Southern	1954	40,809,847	24,121,828	2,285,628	6,138,880	19,167,857	12,957,393	60,430,993
	1953	47,861,404	29,963,412	2,289,289	6,602,281	18,581,084	11,725,917	61,171,000
Lake Superior & Ishpeming	1954	3,449,185	2,636,867	33,822	615,429	2,628,304	784,033	938,250
	1953	4,962,393	3,175,649	39,659	941,197	3,149,742	1,555,136	1,063,350
Lehigh & Hudson River	1954	3,223,716	2,208,688	9,696	417,938	1,149,020	414,189	422,613
	1953	3,500,449	2,214,731	11,993	470,959	1,283,580	585,612	537,453
Long Island	1954	56,466,928	50,688,079	1,922,910	3,542,934d	13,554,332	10,535,734	73,981,602
	1953	55,855,031	47,991,259	2,299,968	2,704,590d	13,233,522	24,694,418	59,278,038
Louisiana & Arkansas	1954	25,554,568	15,297,917	817,984	4,868,691	17,861,488	6,862,512	24,831,477
	1953	30,476,140	19,045,992	993,294	5,554,494	19,171,419	9,702,898	28,029,604
Louisville & Nashville	1954	196,841,708	161,062,530	9,246,887	18,926,644	84,533,788	22,392,735	273,114,291
	1953	232,983,209	168,867,363	8,939,832	30,653,516	85,998,536	40,775,409	275,518,346
Maine Central	1954	24,247,450	19,912,742	1,364,823	682,114	7,444,789	4,739,953	25,691,495
	1953	25,408,365	19,617,118	1,468,026	1,175,907	8,898,082	5,921,349	26,138,320
Minneapolis, St. Paul & Sault Ste. Marie	1954	38,189,611	33,455,323	137,364	1,592,354	17,473,454	9,265,400	30,735,776
	1953	39,706,940	35,412,225	121,598	504,816	16,462,173	9,126,242	24,775,588
Mississippi Central	1954	2,408,453	1,851,112	75,001	166,694	886,303	340,412	1,708,270
	1953	2,741,100	2,067,633	67,472	210,699	937,119	376,429	1,915,370
Missouri-Kansas-Texas	1954	72,548,363	56,310,697	2,987,333	4,019,829	24,564,430	11,724,157	94,994,547
	1953	85,545,555	62,854,147	2,984,705	6,342,927	30,491,186	16,858,437	95,135,650
New York Central	1954	708,729,961	596,221,888	47,325,401	9,187,509	169,865,062	124,626,627	822,737,202
	1953	825,348,776	683,643,179	49,153,329	34,002,039	172,864,634	133,726,107	834,767,156
New York, Chicago & St. Louis	1954	144,921,630	101,980,178	5,529,243	14,460,872	53,403,844	30,378,894	125,795,710
	1953	167,364,177	113,860,335	5,252,349	17,866,796	61,708,344	39,591,169	123,524,230
Norfolk and Western	1954	170,059,738	125,630,415	1,441,284	26,291,200	73,981,838	31,171,410	35,791,700
	1953	189,560,268	136,449,628	1,432,265	28,077,419	81,203,104	41,155,663	35,791,700
Norfolk Southern	1954	9,869,545	8,218,695	274,653	356,076	2,538,923	1,311,515	5,273,630
	1953	11,127,485	8,560,911	272,548	772,812	2,864,724	1,735,047	5,384,242
Pittsburgh & Lake Erie	1954	33,235,724	31,866,518	920,251	8,517,681	13,011,118	6,187,476	28,796,040
	1953	49,258,538	38,092,890	916,963	12,407,875	17,993,397	14,663,929	31,890,713
Richmond, Fredericksburg & Potomac	1954	25,848,461	18,164,323	124,853	3,222,047	10,894,565	5,208,378	3,534,092
	1953	27,496,776	18,743,751	142,294	3,296,036	10,223,227	5,177,509	4,299,928
Rutland	1954	4,551,086	4,056,723	24,074	122,911d	1,058,608	373,540	543,626
	1953	5,068,716	4,655,075	33,262	95,794d	1,210,340	420,170	697,354
St. Louis Southwestern	1954	59,070,256	37,532,809	949,658	16,539,618	39,276,008	15,316,936	23,748,000
	1953	72,642,756	46,466,922	1,043,162	9,216,104	33,334,917	18,591,791	24,368,789
Savannah & Atlanta	1954	3,591,428	2,375,030	114,489	509,272	1,644,477	1,133,160	2,174,679
	1953	3,943,196	2,606,593	80,001	304,203	2,333,558	1,587,086	1,058,516
Spokane International	1954	3,255,059	1,872,810	53,565	505,330	1,726,044	950,855	3,697,819
	1953	3,357,078	1,954,622	51,456	501,691	1,529,353	968,718	3,887,555

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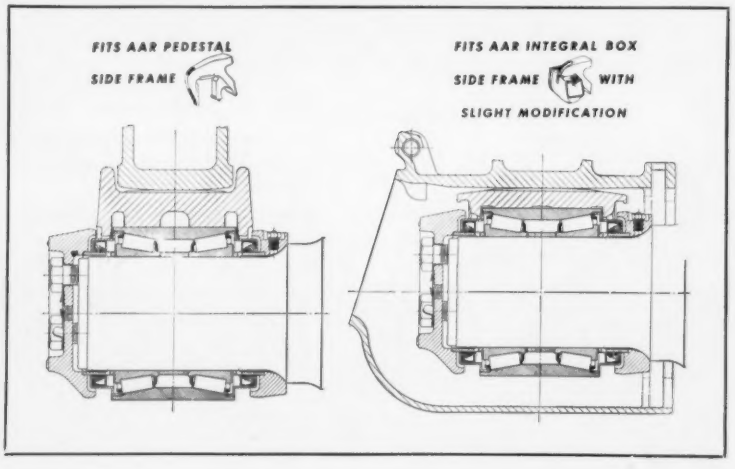
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